Shame and Guilt: Implications for the Regulation of Alcohol Use

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Abstract

Shame and guilt are two closely related self-conscious emotions of negative affect that give rise to notably disparate motivational and self-regulatory behaviors. Preliminary research suggests that while the dispositional tendency to experience guilt (i.e., guilt-proneness) is inversely related to disordered alcohol use, dispositional shame-proneness appears to share a positive relationship with alcohol problems. However, no research has explored the reasons for which shame and guilt-prone individuals consume alcohol, including the notion that shame-prone individuals consume alcohol to cope with negative emotions. Moreover, no research has examined the unique correlates of shame and guilt experienced specifically in response to problematic alcohol use (i.e., alcohol use-related shame and guilt). The overarching aim of this thesis was to further clarify the roles of shame and guilt in the regulation of alcohol use in two non-clinical samples predominately comprising undergraduate students.

Study 1 (Sample 1 N = 428, Sample 2 N = 281) sought to explore the respective relationships of dispositional shame and guilt-proneness with problematic alcohol use, impaired control over alcohol consumption, and the experience of negative alcohol-related consequences. Dispositional shame-proneness was found to be positively associated with the experience of alcohol problems and the perceived loss of control over drinking. In contrast, a consistent pattern of results emerged indicating that dispositional guilt-proneness is associated with the adaptive regulation of alcohol use and the avoidance of alcohol-related harms.

Study 2 (Sample 1 N = 429, Sample 2 N = 281) sought to examine the links between dispositional shame and guilt-proneness with individual differences

in reasons for drinking, as well as the beliefs that shame and guilt-prone individuals hold with regards to the effects of alcohol. Consistent with the shame-alcohol use-shame hypothesis, dispositional shame-proneness was positively associated with drinking as a means of down-regulating negative emotions and the belief that alcohol use results in emotion deregulation and additional negative affect. In contrast, dispositional guilt-proneness was inversely related to drinking to cope with negative emotions.

The aim of Study 3 was to develop and provide an initial psychometric validation of a new domain-specific measure of alcohol use-related shame and guilt, the Perceptions of Drinking Scale (PODS). The psychometric properties of the PODS were found to be excellent across two independent samples (Sample 1 N = 293, Sample 2 N = 429), with findings indicating that alcohol use-related shame and guilt can be reliably differentiated using exploratory and confirmatory factor analysis procedures. Preliminary evidence of construct validity was also found for the alcohol use-related shame and guilt subscales of the PODS. Alcohol use-related shame was not clearly related to the taking of action to address problematic alcohol use, but was positively related with measures of negative affect and the tendency to use avoidance-based coping strategies. Conversely, alcohol use-related guilt was generally unrelated to measures of negative affect and was clearly associated with the taking of action to address problematic alcohol use.

This dissertation found that both dispositional shame-proneness and experiences of alcohol use-related shame appear to play no or very minimal adaptive role in the regulation of alcohol use. In contrast, dispositional guilt-proneness and experiences of alcohol use-related guilt were consistently found to

be associated with favourable alcohol use regulation outcomes. These findings further highlight the importance of differentiating between shame and guilt when considered in alcohol treatment and research contexts. Moreover, results indicate that the alcohol use-related shame and guilt constructs have particular relevance in the context of treating and conceptualizing the emotional sequelae a problematic alcohol use.

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CHAPTER 1

Introduction: Shame, Guilt, and Alcohol Use Regulation

Brief Introduction and Rationale

Shame and guilt are two closely related self-conscious emotions of negative affect that give rise to disparate motivational and self-regulatory behaviors (Tangney & Dearing, 2002). While shame has been associated with a host of maladaptive functioning variables and life difficulties, guilt has been consistently associated with adaptive self-regulation outcomes (Tangney, Stuewig, & Mashek, 2007). In recent times, several researchers have begun to explore the respective implications of shame and guilt-proneness for the experience of substance use-related disorders (e.g. Dearing, Stuewig, & Tangney, 2005; Meehan et al., 1996; O'Conner, Berry, Inaba, Weiss, & Morrison, 1994). Preliminary research suggests that while guilt-proneness is inversely related to alcohol misuse, shame-proneness appears to share a positive relationship with alcohol problems (Dearing et al., 2005).

In elaborating upon the apparent link between shame and alcohol problems, several theorists have hypothesized that shame-prone individuals may be inclined to drink as a means of down-regulating experiences of shame and other negative affect (Dearing et al., 2005; Potter-Efron, 2002; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007). While this drinking-to-cope strategy may be effective in the short term, Tangney and Dearing (2002) suggest that a destructive cycle of negative affect, alcohol use, and the experience of negative alcohol use-related consequences may result if

this substance use as a coping strategy is frequently relied upon. Providing additional support for the existence of a "shame-alcohol use shame spiral", experiences of shame are commonly experienced *as a result* of alcohol problems and it appears that shame, in particular, serves as a substantial barrier to treatment seeking behaviour and positive therapeutic outcomes (Potter-Efron, 2002).

The preliminary and relatively scant empirical literature on shame, guilt, and alcohol use has thus far sought to examine the relationships between generalized shame and guilt-proneness and the experience of alcohol problems (see Dearing et al., 2005). However, it appears no research has sought to directly explore the reasons for which shame and guilt-prone individuals consume alcohol. Similarly, it does not appear that any research has been conducted to determine whether or not shame-prone individuals *are* actually inclined to drink to down-regulate negative affect.

Moreover, relatively little attention has been paid to the correlates of shame and guilt experienced specifically *as a result* of alcohol problems and negative alcohol-related consequences. A likely reason for this dearth in the literature is that while there are valid and reliable measures that assess dispositional shame and guilt-proneness (see Tangney & Dearing, 2002), there is currently no measure that quantitatively assesses shame and guilt reactions experienced *specifically* in response to transgressive alcohol use.

Given that difficulties are often encountered by therapists when screening for shame and guilt in alcohol treatment settings (Potter-Efron, 2002), a brief self-report measure that indicates levels of alcohol use-related guilt and shame is likely to be of some utility to clinicians. For instance, if the measure reveals that

an individual is experiencing a significant level of alcohol use-related shame, the treating therapist may need to focus on diffusing the experience of this aversive and maladaptive emotion (Dearing et al., 2005; Wiechelt, 2007). Conversely, if the individual reports feeling significant alcohol use-related guilt, the therapist may be able to cautiously harness these feelings as a motivator for positive behaviour change.

In addition to having potential utility in clinical settings, a measure of alcohol use-related shame and guilt may also have application in research settings. For example, research could be conducted exploring the factors or consequences that uniquely contribute to shame and guilt experienced in response to problematic alcohol use. Moreover, research could investigate the roles that alcohol use-related shame and guilt each play in predicting treatment outcomes and motivation to change alcohol consumption following the experience of negative alcohol-related consequences.

Similarities and Differences between Shame and Guilt

Shame and guilt are both generally unwelcome but commonly experienced negative self-conscious emotions that are experienced in response to the contravention of internalized moral codes or principles (Tangney et al., 2007). While shame and guilt are similar in that each is experienced in response to comparable situations and circumstances (Tangney, 1992), there is a growing awareness that they are distinct emotions which can be differentiated by their respective cognitive and phenomenological correlates (Tangney, Miller, Flicker, & Barlow, 1996). Furthermore, the two affects can be differentiated empirically

by their associated motivational and behavioural outcomes, with those resulting from guilt being primarily adaptive in terms of self-regulatory outcomes, and those from shame being primarily maladaptive (Tangney & Dearing, 2002).

When an individual feels guilty, they experience feelings of uneasiness and tension in response to a behavioural transgression (Tangney et al., 2007). Associated with experiences of guilt are feelings of anxiety, regret, and remorse. However, when an individual experiences guilt, it is the transgression itself that becomes the centre of scrutiny rather than the self that caused it (e.g., "How could I have *done that*?" Lewis, 1971; Tangney et al., 1996). Furthermore, feelings of guilt have been linked with favorable motivational and behavioural outcomes in that the individual often feels compelled to produce reparative action to alleviate associated feelings of anxiety and regret (Baumeister, Stillwell, & Heatherton, 1994). Thus, while guilt involves negative affect, it is thought to be a primarily adaptive emotion in that it alerts the individual to their indiscretion and promotes ameliorative action (Tangney & Dearing, 2002). Amodio, Devine and Harmon-Jones (2007) suggest that guilt-elicited ameliorative action may take the form of discontinuing what is perceived to be problematic behaviour (i.e., withdrawal motivation) and instigating behaviour to make amends for wrongdoings if possible and where appropriate (i.e., approach motivation). In this respect, guilt has been conceptualized as an adaptive and dynamically operating negative affect experience with behavior inhibition and approach functions.

In contrast to the adaptive functions of guilt, a large body of research now indicates that aversive experiences of shame are predominately maladaptive, characterized by feelings of powerlessness, inferiority, and by a desire to conceal one's real or imagined deficiencies (Tangney & Dearing, 2002). The role of the

defective self in the experience of shame is fundamental to its experience (Lewis, 1971; Tangney et al., 1996). When shamed, the self, rather than the transgression that elicits the shame response, becomes the focal point of painful and often incapacitating scrutiny (e.g., "How could *I* have done that?"). Experiences of shame are also characterized by feelings of exposure before a real or imagined audience leading to a strong desire to hide or disappear (Lewis, 1971; Tangney et al., 1996). The escape strategies that individuals characteristically adopt when experiencing shame have resulted in the emotion being regarded as a highly aversive, disabling, and typically avoidance-oriented negative affective experience (Tangney & Dearing, 2002).

In light of the key distinctions between shame and guilt and their unique and divergent correlates (Tangney & Dearing, 2002; Tangney et al., 2007), Tangney and colleagues argue that it is necessary to very clearly differentiate between the two constructs when conducting research. This is particularly the case given the substantial and long standing confusion surrounding the boundaries of the two constructs and the imprecise use of terminology made on part of therapists, lay people, and indeed, some theorists (Tangney et al., 1996).

Situational Antecedents of Shame and Guilt

The self-referential emotions of shame and guilt are typically experienced subsequent to failures or the contravention of internalized moral principles or standards (Tangney & Dearing, 2002). In addition to the perceived role of the self in transgressions, theorists have argued that shame and guilt can be differentiated by the public or private nature of the transgression that that gives rise to

experiences of the two emotions (Tangney et al., 2007). Shame has a long-standing history of being regarded as an emotion that typically occurs in response to *publicly* produced transgressions and thus, has been said to involve an element of public exposure of one's deficiencies (e.g., Ausubel, 1955; Benedict, 1946; Gehm & Scherer, 1988). In contrast, guilt has been historically regarded as an emotion arising subsequent to *privately* experienced transgressions, with the emotion often experienced in secret and without the awareness of others (Tangney & Dearing, 2002).

However, there is very little empirical support for the hypothesized private (guilt) vs. public (shame) distinction in the antecedents and experience of the two emotions (Tangney & Dearing, 2002; Tangney et al., 1996). Testing this longstanding hypothesis, Tangney, Marschall, Rosenberg, Barlow and Wagner (1994) had children and adolescents describe autobiographical accounts of shame and guilt experiences and coded these narratives to determine how public or private these shame and guilt experiences were. Tangney et al. (1994) found that although children and adults both commonly experienced shame and guilt in the presences of others, a large number of participants also reported experiencing shame *and* guilt while alone (i.e., "solitary" shame and guilt). Tangney et al. (1996) provided further evidence questioning the public (shame) vs. private (guilt) distinction between the two emotions and concluded that the public or private nature of transgressions appears to play little role in determining which emotion is likely to arise.

A number of negative events have been identified that give rise to feelings of shame and guilt (Tangney et al., 1996). For instance, moral transgressions such as lying, inflicting distress or pain on another, failing to help someone in need,

and stealing have all been associated with feelings of shame and or guilt (Lewis, 1971). Failures and non-moral transgressions, such as experiencing rejection, having one‘s privacy invaded, experiencing competitive defeat, and experiences of achievement-related failure have also been found to give rise to the experience of the two emotions (Tangney, 1992).

In an analysis of autobiographical accounts of shame and guilt experiences, Tangney (1992) found little support for the notion that there are specific or classic moral transgressions that are more likely to give rise to experiences of shame as compared to guilt and vice versa. Indeed, a range of moral transgressions (e.g., cheating, lying, failing to help some in need) appear equally as likely to give rise to shame, guilt, and or a combination of the two emotions in different people (Tangney, 1992; Tangney & Dearing, 2002; Tracy & Robins, 2006). Nonetheless, there is some research to indicate that non-moral transgressions, such as achievement-related failures, are marginally more likely to result in experiences of shame than guilt (Tracy & Robbins, 2006).

In summary, shame and guilt are self-conscious emotions experienced subsequent to the breaching of an internalized moral code or principle and both emotions involve internal attributions for having transgressed (Tangney et al., 2007). Shame and guilt can be experienced in public and private settings and it appears that *any* type of transgression or failure can give rise to shame, guilt, or a combination of the two emotions (Tangney & Dearing, 2002). While there is some evidence to suggest that achievement-related failures are more likely to give rise to experiences of shame than guilt, there appears to be few, if any, classic shame or guilt eliciting events.

Why People Might Experience Alcohol Use-Related Shame and Guilt

A large portion of individuals who consume alcohol report the experience of negative alcohol use-related consequences (Kahler, Strong, & Reid, 2005). These consequences vary in severity and nature and can include social and interpersonal problems, impaired control of alcohol use, negative self-perceptions arising as a result of drinking, engagement in risky and impulsive behaviours, physical dependence, neglecting one's self-care, academic and occupational consequences, and hazardous blackout drinking (see Read, Kahler, Strong, & Kolder, 2005). As shame and guilt are elicited in response to failures and the contravention of internalized standards unique to each individual (Tangney & Dearing, 2002), there appear to be numerous possible negative alcohol use sequale or consequences that might give rise to one or both of the self-conscious emotions. At present, however, there has been little exploration of the discrete reasons as to *why* individuals might experience alcohol use-related shame or guilt.

Brief Aims of the Present Research

In light of the need for further research exploring relationships between shame, guilt, and alcohol use and the potential utility of an alcohol use-related shame and guilt measure, this thesis has four broad aims. Firstly, it will aim to further explore relationships between shame and guilt-proneness with alcohol use disorders, drinking patterns, control over alcohol consumption, and the experience of negative alcohol-related consequences. Secondly, it will aim to examine some of the hypotheses that have been put forward to help explain the

positive relationship between shame-proneness and alcohol use disorders and the negative relationship between guilt-proneness and problematic alcohol use. This will include in an investigation into the oft-stated but thus far untested hypothesis that shame-prone individuals drink to cope with negative affect (Dearing et al., 2005; Potter-Efron, 2002; Tangney & Dearing, 2002; Wiechelt, 2007). The third aim of the present study is to develop and psychometrically validate a measure assessing alcohol use-related shame and guilt experienced as a result of problematic alcohol use. The fourth aim is to use the newly developed measure to explore the respective roles that alcohol use-related shame and guilt each play in predicting individual differences in readiness and motivation to change alcohol consumption behavior. Finally, the fifth aim of the present study is to examine the unique and various consequences that may lead to individuals experiencing alcohol use-related shame and or guilt.

CHAPTER 2

The Assessment of Shame and Guilt-Proneness, Domain-specific Shame and Guilt, and Alcohol Use-Related Shame and Guilt

Commonly Used Approaches to Assessing Shame and Guilt

A number of different approaches have been used with the aim of measuring individual differences in the propensity to experience shame and guilt (Tangney, 1996). The most prominent conceptualization in the literature is the notion of shame- and guilt-„proneness", the general propensity to experience shame or guilt in response to commonly occurring day-to-day transgressions (Leeming & Boyle, 2004). Implicit to this approach is that the tendency to experience shame and or guilt is a trait-like disposition that is stable over time and that some people are more shame- and or guilt-„prone" than others (Leeming & Boyle, 2004). A second, but arguably less prominent conceptualization is the notion of „internalized shame", or shame that is inextricably incorporated into an individual's global sense of self and is not necessarily tied to specific negative events (e.g., Cook, 1994). This conceptualization focuses exclusively on experiences of shame and largely ignores those which involve guilt (Tangney, 1996).

The most widely used measure of shame- and guilt-proneness is the Test of Self-Conscious Affect (TOSCA), first developed by Tangney, Wagner, and Gramzow (1989) and now in its third revision (TOSCA-3: Tangney, Dearing, Wagner, & Gramzow, 2000). The TOSCA-3 operationalizes shame and guilt-proneness as an individual's propensity to experience shame and or guilt in

response to a broad range of commonly occurring negative events and transgressions. The measure has four subscales, yielding indices for Shame-proneness, Guilt-proneness, Externalization, and Detachment/Unconcern. The TOSCA-3 provides 11 negative scenarios with an example being *–At work, you wait until the last minute to plan a project, and it turns out badly"*. The response options that follow this scenario are: *_you would feel incompetent'* (shame response); *_you would feel: "I deserve to be reprimanded for mismanaging the project"* (guilt response); *_you would think: "there are never enough hours in the day"* (externalization); and *_you would think: "what's done is done"* (detached/unconcerned). Individuals are required to rate their likelihood of responding in a way consistent with each of the response options using a five-point scale with end-point designations of *_not likely'* (1) and *_very likely'* (5). An individual's characteristic shame and guilt responses are summed across scenarios to yield indices of shame and guilt-proneness.

One of the benefits of the TOSCA-3 is that it is not a forced choice measure and acknowledges that individuals may feel or react in several different ways following the production of a transgressive behaviour (Tangney, 1996). For example, some transgressive acts may lead to experiences of shame, others guilt, and others some combination or neither of the two emotions (Tangney & Dearing, 2002).

Despite its widespread use and adoption, the TOSCA-3 has been criticized by Leeming and Boyle (2004) who argue that the measure is compromised as it is culturally embedded. Specifically, Leeming and Boyle (2004) note that the TOSCA-3 scenarios and response items may not be equally relevant to individuals across cultures and indeed, across other demographic

variables including gender, age, and socioeconomic status. An additional criticism leveled against the TOSCA-3 by Andrews, Qian, and Valentine (2002) is that the measure does not tap clinically relevant levels of shame experienced in discrete life domains or contexts unique to each individual (e.g., with regards to body image, addiction, achievement-related failure, or experiences of trauma). Moreover, the TOSCA-3 appears to be of questionable clinical utility in identifying the reasons *why* individuals experience shame or guilt (Leeming & Boyle, 2004).

Identifying a need for a tool that attempts to measure chronic and painful levels of shame seen in clinical practice, Cook (1994) developed the non public domain Internalized Shame Scale (ISS). The ISS seeks to measure ―internalized shame" which is defined by Cook (1988) as ―a during chronic shame that has become internalized as part of one's identity and which can be most succinctly characterized as a deep sense of inferiority, inadequacy, or deficiency" (p. 9). The latest version of the ISS (Cook, 1994) comprises 24 items with an example item ―*I see myself as being very small and insignificant*." Depending on how often and consistent their experience is with the statement, participants respond to each item on a 5-point Likert scale with end point designations of 1 = *'Never'* and 5 = *'Almost Always'*. Six items included in the ISS are taken from the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and serve as fillers. Responses for all other items are summed to yield a measure of ―internalized shame".

While the ISS has sound psychometric properties and has received some use in addiction-related clinical and research settings (Wiechelt, 2007), the construct and discriminant validity of the measure appears to be questionable (Allan, Gilbert, & Goss, 1994; Tangney, 1996). For example, Allan et al. (1994)

note the overlap between –internalized shame" and depression phenomenology. Also calling into question the discriminant validity of the ISS, Tangney (1996) argues that the scale is primarily a measure of low self-esteem and in support, highlights research which has found that the ISS produces substantial correlations with measures of self-esteem (e.g., Cook, 1988, 1994). Tangney (1996) also notes that that a number of items contained in the ISS appear to tap self-esteem phenomenology (e.g., –I see myself striving for perfection only to continually fall short") as opposed to phenomenology consistent with shame (e.g., feelings of worthlessness, feeling ‗small' and exposed, and experiencing a pressing need to hide one's real or perceived flaws).

Another measure aiming to measure chronic feels of shame and guilt is the Personal Feelings Questionnaire-2 (PFQ-2; Harder, Cutler, Rockart, 1992), which uses a global adjective checklist measurement approach. In responding to the 16-item PFQ-2, respondents are required to indicate the *frequency* of which they have experiences consistent with guilt- and shame-related affective descriptors (e.g., –intense guilt", –regret", and –remorse", for guilt; for shame, –feeling childish", and feeling ridiculous"). Tangney (1996) argues that while global adjective checklist measures such as the PFQ-2 appear to have good face validity, they have two notable limitations. Firstly, checklist measures of shame and guilt heavily rely on individuals to explicitly and accurately differentiate between experiences of shame and guilt experiences. Tangney (1996) notes that this is problematic as even highly educated university students have considerable difficulty in providing concrete and meaningful definitions of shame and guilt. Moreover, individuals appear inclined to report experiences of shame and mixed shame and guilt experiences as –guilt" (Lewis, 1971).

A second notable limitation of the PFQ-2 (Harder et al., 1992) identified by Tangney (1996) is that it requires individuals to provide ratings or evaluations of one's *entire self*, free from any transgression eliciting contexts. Specifically, Tangney (1996) argues that "the most problematic aspect of the global adjective approach, in my view, is that it essentially poses respondents with a shame-like task—that of making global ratings about the self (or the self's general affective state) in the absence of any specific situational context" (p. 747). Tangney (1996) notes that this is not particularly problematic in the measurement of shame experiences, which *do* involve critical and global self-evaluations. However, measuring guilt-proneness using this approach is highly problematic as guilt is experienced as a result of and about *specific transgressive behaviors*, with little or no global self-evaluation.

Another self-report measure that aims to measure chronically experienced shame is the 25-item Experience of Shame Scale (ESS) developed by Andrews et al. (2002). The ESS aims to measure clinically significant and chronic experiences of bodily shame, shame about nonspecific behaviours, and generalized "characterological shame" about the entire self. Participants respond to each item (e.g., "*Have you felt ashamed of your personal habits?*") using a 4-point Likert scale of 1—"*Not at all*" to 4—"*Very much*" and with regard to how they felt over the previous year.

Despite demonstrating promising psychometric properties (Andrews et al., 2002), the ESS has notable limitations. Firstly, and as with Cook's Internalized Shame Scale (1994), the ESS offers no measure of the guilt-proneness. Secondly, the ESS appears to have questionable construct validity in that a number of the items included in the measure appear to tap constructs

external to shame. For example, the item assessing behavioural shame "*Have you worried about what other people think of your personal habits?*" appears to be measuring fear of negative evaluation of one's non-specified personal habits as opposed to shame experienced directly as a result of these habits. Despite these limitations, the ESS does make steps towards ascertaining potential sources of an individual's experience of shame (Leeming & Boyle, 2004).

In summary, a number of different measurement approaches have been developed which aim to allow for the assessment of dispositional shame and guilt-proneness (Tangney, 1996). This includes checklist measures such as the PFQ-2 (Harder et al., 1992), scenario-based measures such as the TOSCA-3 (Tangney et al., 2000), and measures which aim tap chronically experienced shame such as the ISS (Cook, 1994) and the ESS (Andrews et al., 2002). While each measure has notable strengths and limitations, the most widely used means of assessing dispositional shame and guilt-proneness is via the scenario-based TOSCA-3.

Domain and Context-Specific Shame and Guilt

Leeming and Boyle (2004) are critical of the shame literature's heavy emphasis on *dispositional* shame-proneness and argue that this has led to a dearth of research exploring shame experienced specifically *about* something or in a particular context. Similarly, Mills (2004) contends that although shame-proneness has been predominately defined and conceptualized in the literature as a global trait that operates in a large number of contexts, it appears plausible that for some people, shame-proneness may be more pronounced in specific life

domains relative to others. For example, an individual may be prone to experiencing shame following a period of problematic alcohol use but he or she may not necessarily be prone to experiencing shame in response to mismanaging a project at work.

Recognizing the importance of exploring the reasons *why* individuals experience shame and guilt, several researchers have recently begun exploring domain-specific shame and guilt (Tangney et al., 2007). One domain that has experienced some empirical attention is shame and or guilt experienced specifically with regards to one's body (e.g., Andrews, 1995, 1998; Conradt et al., 2007; Markham, Thompson, & Bowling, 2004; Thompson, Dinnell, & Dill, 2003). For example, Andrews (1995, 1998) has explored relationships between the experience of childhood sexual and physical abuse and subsequent domain-specific experiences of shame, particularly body-related shame. Other research has investigated the correlates of shame experienced in response to achievement-related failure (e.g., Thompson et al., 2008) while shame and guilt experienced subsequent to traumatic experiences has also become a growing research domain (e.g., Andrews, Brewin, Rose, & Kirk, 2000; Blacher, 2000; Ginzburg et al., 2009; Kubany et al., 1995; Lee, Scragg, & Turner, 2001; Leskela, Dieperink, & Thuras, 2002; Wong & Cook, 1992).

The Need for Additional Domain-Specific Shame and Guilt Measures

With the dominance of the *dispositional* approach to conceptualizing shame and guilt in self-conscious affect literature, domain-specific shame and guilt research remains relatively scant (Leeming & Boyle, 2004). One possible

reason this general dearth in the literature is that at present, there is a lack of measures that allow domain-specific shame and guilt to be quantitatively measured (Mills, 2004). Indeed, while there are several measures that assess shame and guilt-proneness as a global trait – such as the widely used TOSCA-3 (Tangney & Dearing, 2002) – relatively few measures exist that aim to provide a focused assessment of shame and guilt experienced specifically in discrete domains or particular contexts. For example, there is currently no measure available to clinicians and researchers that allows for the assessment of shame and guilt experienced specifically *as a result* of alcohol misuse and any associated negative consequences.

In light of the desirability of further research examining domain-specific shame and guilt (Mills, 2004), there is arguably a need for measures that allow for the assessment of these two emotions in discrete life contexts. Indeed, the development of such measures may help address what Leeming and Boyle (2004) argue is a general lack of investigation pertaining to the reasons *why* shame is experienced by individuals and what individuals feel shame *about*.

Several theorists *have* acknowledged the desirability of exploring domain-specific shame and guilt and have developed measures accordingly (e.g., Conradt et al., 2007; Thompson et al., 2003; Thompson et al., 2008; Wright & Gudjonsson, 2007; Kubany et al., 1996). For example, Thompson and colleagues have developed scenario-based measures that aim to assess body-image shame and guilt (Thompson et al., 2003) and achievement-related shame and guilt (Thompson et al., 2008). Similarly Conradt et al. (2007) developed a weight- and body-related measure of shame and guilt while Wright and Gudjonsson (2007) have developed a criminal offence-related shame and guilt scale. Kubany and

colleagues (Kubany, Abueg, Kilauano, Kaplan, 1997; Kubany et al., 1996) have developed measures that aim to assess experiences of guilt subsequent to trauma (i.e., survivor guilt).

Current Difficulties in Assessing Alcohol Use-Related Shame and Guilt

While the non alcohol use-specific Internalized Shame Scale (ISS: Cook, 1994) has received some use in alcohol and drug treatment and research settings (Wiechelt, 2007), the construct validity of this measure appears questionable due to its overlap with depression and self-esteem phenomenology (Tangney, 1996). Moreover, the ISS provides no means of assessing guilt, or shame for that matter, associated *specifically* in response alcohol use or associated negative consequences. The widely used TOSCA-3 (Tangney et al., 2000), on the other hand, effectively measures the trait level general tendency to experience shame and guilt in response to a range of commonly occurring negative events and everyday transgressive behaviors. However, the measure is not suitable for measuring shame and guilt experienced in discreet life domains, such as in response to problematic alcohol use (see Leeming & Boyle, 2004). While the Experience of Shame Scale developed by Andrews et al. (2002) does allow for the measurement of shame associated with non-specific problematic behaviors or ~~"p~~ersonal habits", the ESS leaves the individual to personally define what is meant by ~~"h~~abit" and what these habit behaviors are. As such, the measure is likely to measure shame associated with a large range of non-specific unhelpful habitual behaviors (e.g., frequent overeating, the tendency to lose one's temper, smoking, or failing to keep appointments). Moreover, an additional weakness of

the ESS is that the measure does not assess experiences of *guilt* associated with problematic behaviours or personal habits.

Taken together, there currently does not appear to be an adequate and suitable self-report means of quantitatively assessing shame and guilt experienced as a result of alcohol problems and associated negative consequences. In turn, this makes quantitatively exploring the unique correlates and consequences of alcohol use-related shame and guilt a difficult process.

Measuring Alcohol Use-Related Shame and Guilt: Clinical and Research Applications

The development of a measure that assesses alcohol use-related shame and guilt appears warranted given that the problem approach function of guilt and the problem avoidance function of shame have each been observed in alcohol treatment settings (Potter-Efron, 2002). Elaborating on the seemingly helpful nature of guilt and problematic impact of shame in therapeutic contexts, Morrison (1984) notes that guilt brings material into therapy while shame serves to keep material out. Indeed, Morrison‘s (1984) argument that shame impairs clinical process is perhaps not surprising given that shame is associated with concealment, avoidance, and a strong desire to hide ones real or perceived flaws (Tangney & Dearing, 2002). Potter-Efron (2002) also notes that in alcohol treatment therapeutic contexts, shamed individuals typically harbor strong feelings of worthlessness and in turn, are often reluctant to air these feelings out of fear of negative evaluation from their treating clinicians.

Given that shame and guilt are often encountered in alcohol treatment settings (Potter-Efron, 2002), a brief self-report measure that indicates the levels of shame and guilt an individual is experiencing specifically in response to problematic alcohol use is likely to have some utility for clinicians. For instance, if the measure reveals that an individual is experiencing a significant level of shame, the treating therapist may need to focus on diffusing this aversive experience (Dearing et al., 2005; Wiechelt, 2007). This is particularly the case given that experiences of shame are associated with psychopathology and a reluctance to disclose therapy relevant material (Swan & Andrews, 2003; Tangney, Wagner, & Gramzow, 1992). Conversely, if the individual reports feeling guilt, the therapist may be able to carefully harness these feelings as a motivator for behaviour change. Indeed, having found replicable positive links between shame to substance problems and an inverse link between guilt and such problems, Dearing et al. (2005) suggest that enhancing guilt-proneness and reducing shame-proneness may be a useful mode of intervention for substance misusing or dependent individuals.

In addition to its potential application in clinical settings, a measure of alcohol use-related shame and guilt may have notable applications in research contexts. For example, research could be conducted exploring the factors and types of consequences that uniquely contribute to shame and guilt experienced in response to alcohol misuse. Moreover, investigation could be made with regards to the respective roles that alcohol use-related shame and guilt each play in predicting readiness to change drinking behavior, treatment seeking behavior, non-disclosure in sessions, and behavior change. Finally, such a measure is likely to be useful for the identification of strategies and interventions that enhance

potentially adaptive feelings of guilt and minimise maladaptive shame during the treatment of problematic alcohol use.

CHAPTER 3

The Construct of Shame: Phenomenology and Correlates

The Moral Self-Conscious Emotion of Shame: Phenomenology

Shame is a highly aversive moral self-conscious emotion of negative affect that is characterized by feelings of worthlessness, incompetence, feeling ‗small' and exposed, and by experiencing a pressing need to hide one's real or perceived flaws (Lewis, 1971; Tangney et al., 1996). The experience of shame is described as acutely painful due to the substantial role that self-evaluation plays in the emotional experience (Tangney et al., 2007). More specifically, when an individual experiences shame, the global *self* becomes a focal point of painful and often disabling scrutiny (Lewis, 1971). In addition, the transgression that elicits the shame response tends to be internalized and attributed to stable, characterological flaws in that the individual generalizes the shame evoking behaviour to the entire self (e.g., ―*I* did a bad thing. *I* am a worthless person"; Tangney & Dearing, 2002).

Given the debilitating devaluation of the self that occurs with experiences of shame, the shamed individual feels powerless and globally inadequate (Lewis, 1971; Tangney & Dearing, 2002). Subsequent to, and when reflecting on their transgressions, shamed individuals are also inclined to engage in counterfactual reasoning during which they attempt to mentally undo the transgression by focusing on perceived self-deficiencies (e.g., ―If only *I* was not so stupid" or ―If only *I* were a better person"; Niedenthal, Tangney, & Gavanski, 1994). Indeed,

following transgressive behaviours, shamed individuals evaluate themselves even more negatively and harshly than they believe others do (Tangney et al., 1996).

Shame is also associated with feelings of being observed and having marked concern with regard to how the self and the shame-eliciting transgression are evaluated and perceived by others (Tangney, 1993). Given these feelings of being observed and the aversive physical arousal associated with experiences of shame, it follows that shame is also associated with a motivation to escape, hide, strike back aggressively, or quickly remove oneself that from the shame-eliciting situation (Tangney & Dearing, 2002).

Links between Shame-Proneness and Cognitive Attributional Style

Individuals appear to be inherently inclined to search for the causes of notable events and seek explanations with regards to their behaviors and the behaviors of others (Weiner, 1985, 1986). In explaining the cause of negative events whereby an individual accepts some personal responsibly (e.g., when an individual transgresses), Abramson, Seligman, and Teasdale (1978) posit that attributional patterns can vary across three dimensions: locus of control causes (internal vs. external), causes related to stability (stable vs. unstable), and causes relating to globality (specific vs. global). The manner in which individuals typically attribute negative events appears to have important implications for the development of depression-related symptomatology (Peterson & Seligman, 1984; Seligman, Abramson, Semmel, & von Baeyer, 1979).

Tangney et al. (1992) examined links between shame-proneness and attribution style in the context of exploring links between self-conscious affect

style and psychopathology. Using two samples of undergraduate students, Tangney et al. administered the Attributional Style Questionnaire (ASQ: Seligman et al., 1979) to assess attribution style, and two measures of shame-proneness, the Test of Self-Conscious Affect (TOSCA: Tangney et al., 1989) and a forerunner measure to the TOSCA, the Self-Conscious Affect and Attribution Inventory (SCAAI: Tangney, 1990). Across both studies, shame-proneness was positively and significantly associated with the propensity to make internal (*r*s ranging .13 to .24), stable (*r*s ranging .16 to .20), and global (*r*s ranging .18 to .31) attributions for negative events. Thus, individuals prone to experiencing shame subsequent to behavioral transgressions (e.g., standing someone up for a date) are also inclined attribute a host of everyday non-transgressive negative events (e.g., having difficulty finding a job) to global and stable self-deficiencies (Tangney et al. 1992).

Tangney and Dearing (2002) note that the depressogenic manner in which shame-prone individuals attribute negative events to a globally defective self is consistent with Janoff-Bulman‘s (1979) description of *characterological* self-blame. In a manner largely consistent with experiences of shame, an individual engages in characterological self-blame when they attribute a negative event to real or imagined deficiencies in their character (e.g., feeling globally inept). Janoff-Bulman (1979) contrasts characterological self-blame with potentially adaptive *behavioural* self-blame, which involves attributing negative events to specific behaviors that can be easily modified in the future to prevent the negative event reoccurring. However, Tangney and Dearing (2002) note that experiences of engaging in potentially adaptive *behavioural* self-blame are somewhat consistent with guilt-related phenomenology.

Shame-Proneness and Psychopathology

A number of researchers have sought to examine the links between shame-proneness and psychological maladjustment, the results of which have uniformly highlighted the pathogenic nature of the emotion (e.g., Leskela et al., 2002; Sanftner, Barlow, Marschall, & Tangney, 1995; Tangney et al., 1992; Tangney, Burggraf, & Wagner, 1995). Indeed, shame-proneness has consistently demonstrated positive relationships with a wide range of psychological disorders and symptomatology (for a review, see Tangney & Dearing, 2002).

Consistent with findings that shame-proneness is associated with the propensity to have a depressogenic attribution style (Tangney et al., 1992), significant positive correlations between measures of shame-proneness and depression have been demonstrated by a number of research teams (e.g., Allan et al., 1994; Andrews et al., 2002; Harder, Cutler, & Rockart, 1992; Hastings, Northman, & Tangney, 2000; Stuewig & McCloskey, 2005; Tangney et al., 1992; Webb, Heisler, Call, Chickering, & Colburn, 2007). The identified positive link between shame and depression symptomatology is by no means trivial. In a series of hierarchical regression equations, Tangney et al. (1992) found that self-conscious affect style (i.e., shame and guilt-proneness) predicted between 8 and 15% of the variance in depression symptomatology over and above that explained by attribution style (i.e., the tendency to make internal, stable, and global attributions for negative events). In each of these cases, explained variance in depression symptomatology was largely attributable to individual differences in shame-proneness.

In addition to examining relationships between shame and depression symptomatology, Tangney et al. (1992) explored links between shame-proneness and a host of other psychological problems. To conduct this analysis, Tangney et al. (1992) administered the SCAAI (studies 1 and 2) and TOSCA (study 2) along with the Symptom Checklist-90 (SCL-90; Derogatis, Lipman, & Covi, 1973) and State-Trait Anxiety Inventory (STAI: Spielberger, Gorsuch, & Lushene, 1970) to two samples of undergraduates. Across both studies, shame-proneness was positively and significantly related to *all* nine dimensions of the SCL-90 (*r*s ranging .13 to .49) and with both, state and trait anxiety (*r*s ranging .32 to .50).

Shame has also been implicated in suicidal ideation and behaviour (e.g., Hastings et al., 2000; Lester, 1997), the experience of post-traumatic stress disorder (e.g., Feiring & Taska, 2005; Leskela et al., 2002) eating disorder symptomatology (e.g., Hayaki, Friedman, & Brownell, 2002; Sanftner et al., 1995), and social anxiety (e.g., Gilbert, 2000). Further highlighting the maladaptive nature of shame, positive relationships between shame-proneness and low self-esteem have also been consistently observed in child, adolescent, and adult samples (see Tangney & Dearing, 2002).

Tangney et al. (2007) note that the positive relationship between shame-proneness and psychopathology is robust and moderate, documented across cultures, age groups, and populations using both quantitative and qualitative methodology. Thus, individuals who are vulnerable to experiencing shame also appear to be vulnerable to experiencing negative affect and indeed, a range of psychological disorders (Tangney & Dearing, 2002).

Shame-Proneness and Deficits in Self-Control

Self-control is the capacity to alter or override potentially unhelpful impulses and habitual responses so as to increase the likelihood of meeting one's greater values, morals, priorities, and goals (Baumeister, Vohs, & Tice, 2007). The use of self-control is a conscious, deliberate, and effortful exercise that helps improve the fit between the self and environmental demands (Baumeister, Heatherton, & Tice, 1994). Consequently, it has been argued that the capacity to exert self-control is regarded as key necessity for successful living (Baumeister et al., 2007).

Providing support for its positive function, self-control is related to a host of adaptive functioning variables including better academic achievement, feelings of self-worth, secure attachment style, enhanced interpersonal skills, and improved relationship quality (Tangney, Baumeister, & Boone, 2004). Further highlighting the adaptive nature of self-control ability, a lack of self-control has been linked to maladaptive responses to anger, eating disorder symptomatology, psychopathology, and general maladjustment (Tangney et al., 2004).

Tangney et al. (2004) explored relationships between self-control ability and self-conscious affect style and found a moderate negative correlation between shame-proneness and the dispositional ability to exert self-control across a range of life domains. In explaining the relationship between the two constructs, Tangney et al. (2004) note that shame is often associated with a range of impulsive and often, seemingly irrational acts that serve to defend against perceived self-deficiencies. These acts can include outbursts of anger, blaming others for one's own transgressive behaviors, and making frantic efforts to escape

or withdraw from shame-evoking situations. An equally plausible alternative explanation for the negative relationship between shame-proneness and dispositional self-control ability is that the experience of self-regulatory and impulse control failures may give rise to relatively frequent experiences of shame.

Shame-Proneness and Reduced Self-Efficacy

Congruent with research suggesting that shame is associated with the perception of global incompetence and feelings of worthlessness subsequent to failures (Tangney & Dearing, 2002), it follows that shame-proneness has been linked with dispositional low-self efficacy (Baldwin, Baldwin, & Ewald, 2006). Self-efficacy is an individual‘s belief that they can execute the necessary course of action required to successfully deal with a challenging situation or task (Bandura, 1997).

While high self-efficacy is characterized by a strong belief that an individual *can* successfully perform a particular behavior to complete a task, low self-efficacy is the belief that an individual cannot successfully produce the task-relevant behavior that will ensure success (Bandura, 1993). A large body of research suggests that low self-efficacy is associated with the avoidance of goal-directed activities, generalized effort reduction, and a reduction in the resources individuals expend striving towards goals in particular situations (Zimmerman, 2000).

The relationship between shame and self-efficacy was investigated by Baldwin et al. (2006) who found a moderate negative correlation between shame-

proneness and dispositional perceived self-efficacy, with higher scores on shame subscale of the TOSCA-3 associated with lower trait self-efficacy. Based on these findings, Baldwin et al. (2006) suggest that when faced by challenging tasks, (e.g., such as those which arise in educational, vocational, and other life domains), high shame-prone individuals may question their ability to complete such tasks before they actually attempt them. In turn, this is likely to result in reduced motivation and a reduction in adaptive goal striving behavior (see Bandura & Locke, 2003)

Shame-Proneness and Interpersonal Functioning: Links with Anger Regulation, Aggression, Interpersonal Hostility, and Empathy

In line with a large body of research indicating that shame is associated with deleterious outcomes, shame-proneness has been consistently linked with a notable array of interpersonal functioning difficulties (Tangney & Dearing, 2002). This includes difficulties with the experience of anger (Tangney, Wagner, Fletcher, & Gramzow, 1992), responding to anger in maladaptive ways which result in negative interpersonal consequences (Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996), and difficulties in empathizing with others (Tangney, 1991).

A link between shame and anger was first hypothesized by Lewis (1971) who, based of clinical case study observation, noted that shame appears to give rise to anger and rage in the form of a shame-rage spiral. Lewis (1971) suggested that when an individual experiences shame, they first direct their anger at the flawed self. However, due to the aversive nature and the overwhelming sense of

exposure that comes with experiences of shame, individuals are heavily inclined to down-regulate the emotion. In addition to hiding and avoiding, Lewis (1987) suggests that one defense mechanism against aversive shame experiences is through the externalization of anger towards others or the environment. This in turn, serves to detract attention away from the flawed self. However, Lewis (1971) also notes that this outward expression of anger and rage and the deleterious consequences associated with these externalization behaviors can lead to further experiences of shame.

Across two studies, Tangney et al. (1992) empirically tested and found consistent support for the hypothesis that shame-proneness is associated with the general propensity to experience anger and externalize blame. Using samples of undergraduates, Tangney et al. (1992) administered the TOSCA and SCAAI measures along with the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957), the Trait Anger Scale (TAS; Spielberger, Jacobs, Russel, & Crane, 1983), and the Anger-Hostility and Paranoid Ideation subscales of the Symptom Checklist-90 (SCL-90; Derogatis et al., 1973). Providing empirical support for Lewis‘ (1971) hypothesized link between shame and anger, Tangney et al. (1992) found that shame-proneness was associated with a host of anger and hostility-related indices including trait level anger proneness, anger reactivity, resentment, suspiciousness, paranoid ideation, irritability, and the tendency towards engaging in indirect hostile behaviour.

In addition to having a greater propensity to experience anger (Tangney et al., 1992), shame-prone individuals also appear inclined to respond to their anger experiences through problematic and maladaptive means (Tangney et al., 1996). Tangney et al. (1996) investigated links between self-conscious affect style and

responses to anger across the lifespan using samples of children, adolescents, and adults. To assess shame and guilt-proneness, Tangney administered age-appropriate variants of TOSCA along with age-appropriate variants of the scenario based Anger Response Inventory (ARI: Tangney, Wagner, Marschall, & Gramzow, 1991). The ARI provides comprehensive assessments of adaptive and maladaptive response tendencies following anger-inducing situations (Tangney et al., 1991). Tangney et al. (1996) found that in children, adolescents, and adults, shame-proneness was clearly related to a host of maladaptive responses to anger including self-directed hostility, direct and indirect aggression, malevolent intentions, and deleterious long-term negative consequences.

While shame-prone individuals appear to experience relationship compromising difficulties with anger regulation (Tangney et al., 1992; Tangney et al., 1996), shame-proneness has also been associated with the impaired capacity to empathize with others (Tangney, 1991). Empathy comprises three interrelated cognitive and affective components: (1) the cognitive ability to share or be affected by another individual‘s emotional experience, (2) the cognitive ability to take the perspective of another and accurately assess, recognize, and discriminate their emotional state, and (3) the ability to experience a range of affect that allows one to identify with, adopt, and share the emotional perspective of others (Decety & Jackson, 2006; Eisenberg, Spinrad, & Sadovsky, 2006; Feshbach, 1975). Empathy has been identified as an important component of healthy and warm interpersonal relationships and allows individuals to respond to others in sensitive and appropriate way (Eisenberg, 2000; Eisenberg et al., 2006). Moreover, empathy helps inhibit the production of behaviours that are likely to

cause harm to others (e.g., aggression) and helps individuals identify when they behave in ways that adversely affect others (Miller & Eisenberg, 1988).

Across a series of independent studies, shame-proneness has been found to be consistently and negatively associated with the capacity for empathy (Tangney & Dearing, 2002). For example, Tangney (1991) explored relationships between self-conscious affect style and capacity for empathy by administering the SCAAI (Tangney, 1990) to assess shame-proneness along with the Interpersonal Reactivity Index (IRI: Davis, 1983) and The Empathy Scale for Adults (Feshbach & Lipian, 1987) to assess empathic process abilities. Conducting four studies, Tangney (1991) found that shame-proneness was consistently negatively related to total empathic capacity (*r*s ranging between -.15 to -.35). Shame-proneness was also found to be negatively related to several lower order indices of empathic capacity, including cognitive perspective taking ability, the ability to perceive the affective states of others, and the ability to experience a full range of emotions (*r*s ranging between -.17 to -.41).

Tangney (1991) further found that shame-proneness was significantly and substantially positively associated with the propensity to experience *self-focused personal distress* reactions in response to negative situations ($r = .34$) . When an individual experiences self-focused personal distress, the individual *mirrors* the distress or emotional experience of another person but does not necessarily experience *other-oriented feelings of concern* for this individual (Davis, 1983). Due to the primary focus on their *own* negative emotional state, the individual experiencing self-focused personal distress will typically act in ways that aim to alleviate *their own* negative affect experience and disregard that of others (Batson, Fultz, & Schoenrade, 2006). Self-focused personal distress reactions can

be considered maladaptive from an interpersonal relationship perspective in that such experiences have been found to be unrelated to altruistic helping behaviours (e.g., Batson et al., 1988).

In summary, a large body of research indicates that shame-proneness is associated with anger-regulation difficulties, a reduced capacity for empathy, and having difficulties in actively taking on the perspective of others (Tangney & Dearing, 2002). In explaining the negative relationship between shame-proneness and capacity for empathy, Tangney (1991, 1995) argues that the *self*-oriented distress reactions typically experienced by the shame-prone individual impairs his or her ability to take the perspective of distressed others. In turn, this compromises the shame-prone individual's ability to offer support or assistance to alleviate the distress of others.

Shame-Proneness and Illegal, Inadvisable, and Otherwise Hazardous Behavior

Despite its status as a moral emotion which is often presumed to help individuals engage in moral conduct and avoid wrongdoings, there is surprisingly very little evidence to suggest that shame-proneness is adaptive with regards to helping inhibit illegal, inadvisable, and otherwise hazardous behavior (Stuewig & Tangney, 2007; Tangney et al., 2007; Tangney & Dearing, 2002). For instance, Tangney (1994) examined links between self-conscious affect style and the tendency towards engaging in moral behaviour (as measured by the Conventional Morality Scale; Tooke & Ickes, 1988). Indicating that there appears to be no relationship between shame and conventional moral conduct, Tangney (1994)

found that shame-proneness was *unrelated* to a proclivity for righteous behaviour (e.g., refraining from stealing and not taking advantage of others).

Moreover, an ongoing Longitudinal Family Study aiming to track early moral self-conscious affect style and subsequent behavioural adjustment found that fifth-graders identified as shame-prone were more likely to be suspended while in high school (Tangney & Dearing, 2002). Highly shame-prone fifth grade children were also more likely to have made suicide attempts by the time they were 18 or 19 and were less likely to practice safe sex than their less shame-prone peers (Tangney et al., 2007). Furthermore, in line with research indicating that shame-proneness is associated with anger-regulation difficulties and interpersonal hostility (e.g. Tangney et al., 1992), Ferguson, Stegge, Miller, and Olsen (1999) found that shame-proneness among children was associated with parental report of externalization behaviors (e.g., aggression and cruelty). Tangney et al. (2007) argue that rather than inhibiting potentially risky and inadvisable behaviour, in some instances, shame-proneness may be associated with a *greater* tendency towards potentially problematic behaviour.

Shame-Proneness and Substance Use Problems

Experiences of shame have long been described in clinical addiction treatment literature (e.g., Fossum & Mason 1986; Potter-Efron, 2002). However, Dearing et al. (2005) note that the majority of early research that has aimed to explore the relationship between shame and substance use disorders has failed to clearly differentiate between shame and guilt using well validated measures. Nonetheless, three studies which did pay due consideration for the differences

between shame and guilt have established a positive link between shame-proneness and problematic substance use (Dearing et al., 2005; Meehan et al. 1996; O'Connor et al., 1994).

Both using the TOSCA to determine self-conscious affect style, Meehan et al. (1996) and O'Connor et al. (1994) compared treatment-seeking substance dependent individuals to non-dependent control samples on levels of shame-proneness. Suggesting that shame-proneness is implicated in addictive processes, both Meehan et al. (1996) and O'Connor et al. (1994) found that mean levels of shame-proneness were higher for treatment seeking individuals with substance dependence problems than for community drawn controls.

Dearing et al. (2005) sought to explore relationships between shame and guilt-proneness with substance-related problems using more robust correlation methodology. In research using two samples of undergraduates, Dearing et al. (2005) administered the TOSCA along with the alcohol and drug problems scales from the Millon Clinical Multiaxial Inventory II (MCMI-II; Millon, 1987) in one study, and the same scales from the later MCMI-III (Millon, 1994) in another. Dearing et al. (2005) found that in both undergraduate samples, shame-proneness was positively related to alcohol problems (rs = .31 and .15 for studies 1 and 2, respectively). A significant positive relationship between shame-proneness and drug problems was also found in one study (r = .17), while a non-significant trend (r = .12 p = .06) was found in the other.

Dearing et al. (2005) provided further evidence of a link between shame-proneness and substances problems using a sample of incarnated prison inmates. In conducting this study, Dearing et al. (2005) administered a variant of the TOSCA developed for socially deviant populations (TOSCA-SD; Hanson &

Tangney, 1996) along with the Alcohol and Drug Problems scales of the Personality Assessment Inventory (PAI: Morey, 1991). Comprehensive inmate substance use and dependence symptomatology was also ascertained from semi-structured interview data. Consistent with findings in the undergraduate samples, shame-proneness was associated with alcohol and drug problems as assessed by the PAI. Shame-proneness was also positively related to alcohol, cocaine, and marijuana dependence, and the frequency of cocaine and polydrug consumption.

The identified link between shame-proneness and substance use-related problems is consistent with the large body of literature indicating that shame is associated with poor self-regulatory outcomes (Tangney & Dearing, 2002). Moreover, the link between shame and problematic substance use is congruent with research indicating that shame-proneness fails to inhibit hazardous or otherwise risky behaviors (Tangney et al., 2007).

Summary

Shame is a highly aversive and disabling self-conscious emotion of negative affect that involves attributing failures and transgressions to global self-deficiencies (Lewis, 1971; Tangney & Dearing, 2002). The literature reviewed in this chapter indicates that experiences of shame are predominately maladaptive and are associated with a host of problematic outcomes and life difficulties. This includes identified positive relationships between shame-proneness with psychopathology, a depressogenic attribution style, deficits in self-control and self-efficacy, anger-regulation difficulties, interpersonal hostility, empathic capacity deficits, and substance use-related problems. Shame also appears to be

ineffective in terms of helping to inhibit illegal, inadvisable, and otherwise hazardous behavior. The medium to large magnitude positive relationship between shame-proneness and indices of psychopathology appears to be particularly notable and suggests that the propensity to experience the aversive emotion is seemingly closely tied to the general tendency to experience negative affect.

CHAPTER 4

The Construct of Guilt: Phenomenology and Correlates

The Moral Self-Conscious Emotion of Guilt: Phenomenology

Guilt is a moderately aversive moral self-conscious emotion of negative affect that is characterized by feelings of remorse, regret, and tension experienced in response to breaching an internalized moral code or principle (Lewis, 1971; Tangney et al., 1996). An individual experiencing guilt directs the focus of their negative evaluation squarely on the bad thing done (e.g., "I *did* a bad *thing"*) and there is an experience of concern with regard to the ways in which the transgressive behavior may have had a negative impact on others (Tangney & Dearing, 2002). When experiencing guilt, an individual will often engage in counterfactual reasoning during which they attempt to mentally "undo" the transgression by focusing on elements their problematic behavior (e.g., "If only I *worked harder*" or "If only I *told the truth*"; Niedenthal et al., 1994).

Associated with niggling guilt-related tension and regret comes the motivation to commit proactive reparative action, which typically aims to "fix" or remedy harm caused by the transgression (Tangney et al., 2007). The reparatory action tendencies associated with guilt may take the form of discontinuing problematic behavior, shifting future behavior to avoid a repeat of the transgression, and taking direct action with the aim of repairing the situation such as by apologizing for wrongdoings (Amodio et al., 2007; Tangney & Dearing, 2002). Highlighting the adaptive nature of guilt, these pursuits at reparative

action are typically constructive in helping to maintain relationships and or improving otherwise bad situations (Tangney & Dearing, 2002).

Guilt-Proneness and Psychological Adjustment

Guilt has a long tradition of being regarded as an emotion that plays a significant role in psychopathology, as reflected in the early clinical writings of Freud (1917/1957, 1924/1961) and other prominent clinical psychologists of the 21st century (e.g., Ellis, 1962). Moreover, the hypothesized relationship between and guilt and psychopathology is featured in diagnostic nosology with the Diagnostic and Statistical Manual of Mental Disorders-IV-Text Revision (DSM-IV-TR; American Psychiatric Association, 2000, p. 356) listing "…excessive or inappropriate feelings of guilt…" as part of the diagnostic criteria for major depressive episode.

Despite this longstanding tradition of conceptualizing guilt as maladaptive emotion, research utilizing measures that clearly differentiate between shame and guilt has found that the propensity to experience guilt tends to be *unrelated* to psychopathology (e.g., Averill, Diefenbach, Stanley, Breckenridge, & Lusby, 2002; Leskela, Dieperink, & Thuras, 2002; Quiles & Bybee, 1997; Stuewig & McCloskey, 2005; Tangney, Wagner, & Gramzow, 1992). For example, Tangney et al. (1992) explored links between self-conscious affect style and psychopathology, administering scenario-based measures of shame and guilt-proneness (i.e., the TOSCA and SCAII) along with several measures of psychopathology including the SCL-90-R (Derogatis et al., 1973), the Beck Depression Inventory (BDI: Beck, 1972), and the State-Trait Anxiety Inventory

(STAI: Spielberger et al., 1970). Across two studies involving undergraduates, guilt-proneness was consistently unrelated to a host of measures assessing psychopathology. Moreover, Tangney et al. (1992) found that guilt-proneness was inversely related to some indices of anxiety and anger-related psychopathology.

Replicating Tangney et al.'s (1992) findings in a clinical inpatient population, Averill et al. (2002) found that guilt-proneness was consistently unrelated to psychopathology as assessed by the BDI (Beck, 1972), SCL-90-R (Derogatis et al., 1973) and STAI (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). Further support for the notion that guilt is unrelated to psychopathology comes from research by Leskela et al. (2002) who investigated relationships between self-conscious affect style and the experience of post-traumatic stress disorder (PTSD) symptomatology in a sample of former prisoner of war veterans. Administering the TOSCA and the PTSD Checklist-Military for DSM-IV (PCL; Blanchard, Jones-Alexander, Buckley, & Forneris, 1996), Leskela et al. (2002) found that guilt-proneness was *unrelated* to the experience of PTSD. In contrast, shame-proneness was positively and moderately correlated with the experience of avoidance, chronic arousal, and trauma re-experiencing PTSD symptomatology.

Tangney et al. (2007) note that while guilt as a discrete emotion appears to be unrelated to psychopathology, guilt that has become mixed or fused with shame may nonetheless be associated with problematic outcomes. More specifically, Tangney et al. (2007) argue that the adaptive functions of guilt may be lost when an individual's experience of guilt —that *thing* that I did was *wrong…"* (guilt) is generalized and seen as a reflection of the defective self (… *I*

am a *horrible and worthless person*") (mixed shame and guilt). Indeed, it seems plausible that the experiences of "…excessive or inappropriate feelings of guilt…" (DSM-IV-TR, 2000, p. 356) which are characteristic of a major depressive episode may be better conceptualized as experiences of shame fused with guilt, or merely experiences of shame.

Experiences of guilt can, however, be considered problematic when an individual accepts and exaggerates responsibility for negative events that are likely to have been beyond their control (Tangney et al., 2007; Tangney & Dearing, 2002). A key example of when experiences of guilt can be problematic is in instances of child abuse whereby a survivor experiences guilt for an erroneous belief that they did not do enough to prevent or stop the abuse occurring (e.g., Lange et al., 1999). Likewise, 'survivor guilt', or guilt experienced as a consequence of *surviving* trauma appears to be maladaptive and is associated with subsequent psychological maladjustment (Kubany et al., 1995, 1996, 1997).

Finally, it may also be problematic to experience guilt in situations where personal responsibility for negative events or transgressions is clearly ambiguous (Ferguson, Stegge, Eyre, Vollmer, & Ashbaker, 2000). An example of when this might occur is if a child experiences guilt for having erroneously taken responsibility for their friend not being invited to another classmate's party. In a sample of school children aged between 6 and 13, Ferguson et al. found that internalization symptoms (e.g., depression and trait anxiety) were positively related to the tendency to experience guilt in response to negative events or 'perceived' transgressions whereby responsibility was actually equivocal.

The Attributional Correlates of Guilt

In addition to research examining the links between guilt-proneness and psychological adjustment, the attributional correlates of guilt have also been subject to investigation (e.g., Tangney et al., 1992; Tracy & Robbins, 2006). Tangney et al. (1992) examined links between guilt-proneness and general attribution style for negative events by administering the Attributional Style Questionnaire (ASQ: Seligman et al., 1979) along with measures of guilt-proneness in the TOSCA and SCAII to two samples of undergraduates. Contrary to Tangney et al.'s (1992) predictions that guilt-proneness would be associated with a propensity to make internal, unstable, and specific attributions for negative events, no relationships between guilt-proneness and a tendency towards this attribution pattern was found.

In more recent times, Tracy and Robins (2004, 2007) have developed an appraisal-based model of self-conscious emotions, which predicts that experiences of guilt will occur subsequent to transgressions or failures whereby the individual attributes blame to internal, unstable, and uncontrollable causes. Across a series of four studies employing correlational as well as experimental methodology, Tracy and Robins (2006) found support for their model which suggests that an individual will experience failure-induced guilt in instances whereby they attribute blame for their failure on an unstable, controllable, behavior of the self (e.g., effort or carelessness). Tracy and Robins (2006) suggest that in attributing blame to factors that are amendable to change, the guilty individual may be better able to see that reparative action or adaptive behavior modification is likely to be associated with positive outcomes.

Guilt-Proneness and Enhanced Capacity for Other-Oriented Empathy

Highlighting the noteworthy interpersonal and prosocial benefits of guilt, guilt-proneness has been consistently associated with the enhanced capacity for empathy (Joireman, 2004; Leith & Baumeister, 1998; Tangney, 1991, 1995; Tangney & Dearing, 2002). Empathy is a cognitive process that involves the ability to *share* or be affected another's emotional state, the ability to discern and take the emotional perspective of another, and the ability to experience a range of affect that allows one to accurately adopt and share the emotional experience of others (Decety & Jackson, 2006; Eisenberg, Spinrad, & Sadovsky, 2006; Feshback, 1975). As discussed in Chapter 3, empathy helps inhibit the production of behaviours that are likely to cause harm to others and also helps individuals maintain warm interpersonal relationships (Eisenberg et al., 2006; Miller & Eisenberg, 1988).

In a sample of undergraduate students, Tangney (1991) explored relationships between guilt-proneness and capacity for empathy by administering the SCAAI, along with measures of empathy in the Interpersonal Reactivity Index (IRI: Davis, 1983) and Empathy Scale for Adults (Feshbach & Lipian, 1987). Supporting a link between guilt and ability to experience empathy, Tangney (1991) found that guilt-proneness was moderately and positively correlated with the Perspective Taking (r = .31), Empathic Concern (r = .36), and Fantasy (r = .27) subscales of the IRI. On the other hand, guilt-proneness was unrelated to the IRI's generally maladaptive Personal Distress subscale (r = -.01). In two of three studies, Tangney (1991) also found that the dispositional tendency to experience guilt was positively correlated with the General Empathy,

Cognitive Empathy, and the Total Empathy Index scales derived from Feshbach and Lipian‘s (1987) Empathy Scale for Adults.

In addition to replicating Tangney‘s (1991) correlation based findings, Leith and Baumeister (1998) used personal narrative based methodology to explore the relationship between guilt and empathic perspective taking. In this study, guided meditation techniques were enlisted to help participants relive a notable and intense episode of interpersonal conflict and individuals were required to recall their perspective of the event. Using similar guided meditation procedures, participants were then prompted to relive and recall the conflict from the perspective of the person they were arguing with. Participants were also required to indicate who they felt was to blame for the argument and the relationship outcome following the dispute (e.g., dissolution, maintenance of the status quo, or improvement). To investigate the relationship between guilt and perspective taking, instances of guilt in participant descriptions of their disputes were identified and thematically coded. Providing further support for a link between guilt and empathy, experiences of guilt were found to have helped participants better appreciate the perspective of the individual they were arguing with. Moreover, guilt experienced as a result of and during the conflict was associated with more positive relationship outcomes following the dispute.

Tangney and Dearing (2002) argue that experiences of guilt appear to operate synergistically with experiences of empathy, noting that when an individual experiences guilt following a transgression, they remain firmly focused on the negative impact that their transgressive behavior may have had on others. Through their enhanced ability to take on another‘s perspective, the guilt-prone individual is also more likely to be compelled to learn from their poor behaviour

and make attempts remedy the situation through reparative action (Tangney et al., 2007).

Guilt-Proneness and Constructive Reactions to Anger

While shame and anger are closely related emotions that frequently co-occur, guilt and anger appear to be largely incompatible emotional experiences (Tangney et al., 1992, 1996; Tangney & Dearing, 2002). Moreover, research suggests that when guilt-prone individuals *do* experience anger, they tend to behave in a manner which serves to diffuse the anger eliciting situation in adaptive and functional ways (Tangney et al., 1996).

Tangney et al. (1992) explored relationships between self-conscious affect style and proneness to anger and aggression. In two studies involving undergraduate students, Tangney et al. administered measures of guilt-proneness along with several measures assessing anger-related dispositions including the Trait Anger Scale (TAS: Spielberger, Jacobs, Russell, & Crane, 1983), the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957), and the Hostility and Paranoid Ideation subscales of the SCL-90R (SCL-90; Derogatis et al., 1973). Supporting an inverse link between guilt-proneness and the propensity to experience anger, Tangney et al. found that that guilt-proneness was significantly and negatively associated with measures of the tendency to externalize blame (r = -.24), trait anger (r = -.13), interpersonal hostility (r = -.15), and resentment (r = -.21).

Moreover, it appears that when guilt-prone individuals *are* angered, they tend to be apt at down-regulating their anger experiences in constructive and

positive ways. For instance, Tangney et al. (1996) found that in response to a range of anger-inducing scenarios, guilt-prone individuals were less likely to engage in indirect, direct, and displaced aggression than their less guilt-prone peers. Not only was guilt-proneness *negatively* related to the tendency to behave malevolently when angry, guilt-prone individuals were more inclined to engage in non-hostile and open discussion about the anger-eliciting situation with the individual that gave rise to anger response (i.e., the target). Furthermore, guilt-prone individuals were more likely cognitively reappraise their role (e.g., "Maybe I should have been more careful") and the target's role (e.g., "He didn't mean it") in the anger eliciting situation. Finally, guilt-proneness was associated with more positive outcomes when individuals were required to provide an assessment of the likely long-term consequences (i.e., for the self and relationship with the target) of the anger eliciting event.

In explaining the positive relationship between guilt-proneness and the propensity to manage anger in constructive ways, Tangney and Dearing (2002) posit that the guilt-prone individual's enhanced capacity for other-oriented empathy may help serve to dampen anger and aggression-related tendencies. Tangney et al. (1996) further argue that guilt-prone individuals may be more inclined to act adaptively in anger electing situations as they are less likely to be affected by the disabling and relationship compromising effects of shame.

Guilt-Proneness and Enhanced Capacity for Self-Control

Self-control is the ability to suppress potentially unhelpful urges, desires, and behaviors so as to improve the likelihood of meetings one's longer-term

interests and broader life goals (Baumeister et al., 1994). High self-control is associated with a host of positive outcomes including educational achievement, improved general wellbeing, enhanced psychological adjustment, and rewarding interpersonal relationships (Tangney et al., 2004). In contrast, low self-control is implicated in a host of life difficulties including impulse control deficits, substance-related disorders, psychopathology, accruing financial debt, and engaging in antisocial behavior (Baumeister et al., 2007).

Tangney et al. (2004) explored the relationship between guilt-proneness and capacity for self-control, administering the TOSCA as a measure of self-conscious affect style and the Self-Control Scale (Tangney et al., 2004) to assess the dispositional ability to adaptively self-regulate. The 36-item Self-Control Scale yields a total score for dispositional self-control ability which is derived from items assessing capacity for self-discipline, inclination towards deliberate and non-impulsive behavior, the tendency to engage in health-related behaviors, trait work ethic, and personal reliability. Across two studies involving undergraduates, Tangney et al. (2004) found that guilt-proneness was positively and significantly associated with the ability to exert self-control across a range of life domains.

The finding of a positive relationship between guilt-proneness and self-control is consistent with the large body of research indicating that guilt-proneness is associated with a host of adaptive self-regulatory outcomes (for a review, see Tangney & Dearing, 2002). In explaining the positive relationship between guilt-proneness and self-control, Tangney et al. (2004) note that guilt motivates individuals to be future-oriented and consider the consequences of their actions. Tangney et al. (2004) further add that experiences of guilt help motivate

individuals into producing reparative behavior so as to address transgression-related harms they may have caused.

Guilt-Proneness and Illegal, Inadvisable, and Otherwise Hazardous Behavior

Across studies, measures, and samples, guilt-proneness has repeatedly demonstrated inverse relationships with illegal, inadvisable, and otherwise hazardous behavior (Tangney et al., 2007). This inverse relationship appears quite robust and applicable to self-reported criminal history (Tibbetts, 2003), teenage delinquency (Stuewig & McCloseky, 2005), risky sexual practices (Tangney, Mashek, & Stuewig, 2007), and criminal recidivism among previously incarcerated inmates (Tangney et al., 2007). In an ongoing longitudinal study, Tangney and Dearing (2002) report that fifth grade children identified as guilt-prone were less likely to run into problems with the law during adolescence, reporting fewer arrests, convictions, and prison sentences. Moreover, in a study exploring links between morality and self-conscious affect style, Tangney (1994) found that guilt-proneness was positively associated with a proclivity for engaging in moral behaviour (e.g., refraining from theft and taking advantage of others).

However, perhaps the most substantial evidence that guilt-proneness is inversely related to potentially problematic behavior comes from an ongoing study involving incarcerated offenders (Tangney et al., 2007). In a sample of convicted criminals, Tangney et al. found that guilt-proneness was significantly and negatively related to past history of engaging in physically aggressive behaviors, as well as independent clinician ratings of psychopathy and potential

violence risk. Moreover, Tangney et al. found that in a sample of 132 offenders who were released from prison, guilt-proneness was inversely related to the subsequent engagement in versatile criminal behavior (i.e., engagement and a range of criminal activity) one year post release.

Tangney et al. (2007) note that the inverse relationship between guilt-proneness and hazardous behaviour is evident even in considerably high risk populations, including recently incarcerated prison inmates and substance dependent individuals. Stuewig and Tangney (2007) suggest that in terms of inadvisable and risky behavior, guilt-prone individuals may be more able to foresee that certain actions and behaviors are likely to be harmful. Stuewig and Tangney further argue that as guilt is associated with other-oriented perspective taking and empathy (e.g., Tangney, 1991), guilt-prone individuals may avoid problematic, risky, and otherwise hazardous behavior because they are more aware of how such behavior might negatively impact upon others.

Guilt-Proneness and Substance Use Problems

As noted by Dearing et al. (2005), there have been relatively few studies that have explored relationships between guilt-proneness and substance use problems which have employed measures that clearly differentiate between shame and guilt. Despite this general dearth in literature, the available data suggests that the propensity to experience guilt in response to everyday transgressions is inversely associated with problematic substance use (Dearing et al., 2005; Meehan et al. 1996; O‘Connor et al., 1994).

Two early studies (Meehan et al., 1996; O'Conner et al., 1994) sought to explore the relationship between guilt-proneness and substance use problems by comparing treatment seeking substance dependent individuals to non-dependent controls on levels of guilt-proneness as measured by the TOSCA. Alluding to an inverse relationship between guilt-proneness and disordered substance use, both Meehan et al. and O'Conner et al. found that mean levels of guilt-proneness were lower for substance dependent individuals than for community drawn comparison groups.

Dearing et al. (2005) examined links between guilt-proneness and substance problems using correlation-based methodology. In two studies involving undergraduates, Dearing et al. administered the TOSCA to assess guilt-proneness along with the Alcohol Dependence and Drug Dependence scales of the of the MCMI-II (Millon, 1987) in one study, and the later MCMI-III (Millon, 1994) in the other. Finding support of the notion that guilt is associated with the successful regulation of substance use in nonclinical populations, Dearing et al. found that in both studies, guilt-proneness was inversely related to drug and alcohol problems as assessed by the MCMI scales.

Extending their investigation to a sample of prison inmates, Dearing et al. (2005) found similar albeit somewhat less consistent results. More specifically, Dearing et al. found that guilt-proneness was negatively correlated with marijuana use, marijuana dependence, and polydrug use. While a non significant negative trend (r = -.10, p = .06) was evident between guilt-proneness and alcohol dependence as assessed by clinical interview, no significant relationships were found between guilt-proneness and alcohol and drug problems as measures by the PAI (Morey, 1991). In summarizing their results, Dearing et al. note that

the inverse relationship between guilt-proneness and substance misuse largely held up across three independent samples with substantial differences in frequency of substance abuse and dependence problems (i.e., prison inmates as compared to university students).

Additional support for an inverse relationship between guilt-proneness and substance use comes from an ongoing longitudinal study reported by Tangney and Dearing (2002), which found guilt-prone children identified in the fifth grade were less likely to use substances at the age of 18. Moreover, Tangney and Dearing (2002) report that children assessed as high in guilt-proneness started consuming alcohol later on in life than their less-guilt prone peers. This particular finding is notable as the age at which one first consumes alcohol (i.e., more than a few sips) is a well established and robust predictor of the subsequent development of problematic alcohol use (e.g., Grant & Dawson, 1997; Hingson, Hereen, Jamanka, & Howland, 2000; Hingson, Heeren, & Winter, 2006).

Summary

Guilt is a niggling and unpleasant self-conscious emotion of negative affect that involves perceiving transgressions as isolated instances of regrettable behaviour and is characterized by a desire to make amends for misdeeds (Lewis, 1971; Tangney & Dearing, 2002). The literature reviewed in this chapter indicates that experiences of guilt appear to be predominately adaptive and are associated with a host of functional self-regulatory behaviors and positive outcomes. Indeed, guilt-proneness is associated the relationship promoting enhanced capacity for empathy as well as the tendency to manage experiences of

anger in constructive and adaptive ways. Despite its status as an emotion of negative affect, guilt-proneness tends to be unrelated to psychopathology and is associated with the improved capacity to exert self-control. Finally, guilt-proneness has demonstrated inverse relationships with substance use disorders, as well as the engagement in illegal, inadvisable, and otherwise hazardous behaviors.

CHAPTER 5

Shame, Guilt, and Alcohol Use Regulation: Directions for Future Research and Study Aims

Introduction

As indicated in the preceding chapters, a growing body of literature indicates that shame-proneness fails to inhibit behaviours which are potentially deleterious to the self and others (Tangney & Dearing, 2002). In contrast, guilt-proneness has demonstrated positive relationships with numerous adaptive functioning variables and has been found to be inversely related to risky, hazardous, and otherwise inadvisable behaviours (Stuewig & Tangney 2007; Tangney et al., 2007). Consistent with these divergent self-regulatory outcomes associated with the two emotions, preliminary research has implicated shame-proneness in substance use disorders while guilt-proneness appears to be inversely related to problematic substance use (Dearing et al., 2005; Meehan et al. 1996; O'Connor et al., 1994).

This chapter aims to briefly review two promising areas of future research concerning the potential role of self-conscious affect style (i.e., shame and guilt-proneness) in the regulation of alcohol use. The first area of research pertains to the shame-alcohol use-shame spiral hypothesis, which suggests that for the shame-prone individual, alcohol may be used to down-regulate negative affective experiences but also has the potential to result in the burden of additional negative affect (Dearing et al., 2005; Potter-Efron, 2002; Tangney & Dearing, 2002; Wiechelt, 2007). The second key area of future research concerns the

respective implications that experiences of alcohol use-related shame and guilt have with regard to readiness and motivation to change drinking behaviours.

The Shame-Alcohol Use-Shame Spiral Hypothesis

> *The next planet was inhabited by a drunkard. This visit was a very short one, but it affected the little prince with deep sadness.*
>
> *'What are you doing here?' he said to the drunkard whom he found sitting silently in front of a collection of bottles, some empty and some full.*
>
> *'I am drinking,' answered the drunkard lugubriously.*
>
> *'Why are you drinking?' the little prince asked.*
>
> *'In order to forget,' replied the drunkard.*
>
> *'To forget what?' enquired the little prince, who was already feeling sorry for him.*
>
> *'To forget that I am ashamed,' the drunkard confessed, hanging his head.*
>
> *'Ashamed of what?' asked the little prince who wanted to help him.*
>
> *'Ashamed of drinking!' concluded the drunkard, withdrawing into total silence.*
>
> *And the little prince went away, puzzled. 'Grown-ups really are very, very odd,' he said to himself as he continued his journey.*
>
> Antoine de Saint-Exupéry (1943/1995, p. 50 – 51).

Like the drunkard character in Antoine de Saint Exupéry's (1943/1995) classic children's story, The Little Prince, it is common for people to report that they are motivated to consume alcohol in order to enhance mood and to cope with negative affect experiences (Cooper, 1994; Cooper, Frone, Russell, & Mudar, 1995; Grant, Stewart, O'Connor, Blackwell, & Conrod, 2007). Leigh and Stacy (1993) argue that consuming alcohol as a means of down-regulating negative affect states (e.g., anxiety, depression, shame) operates according to negative

reinforcement principles and thus, provides reinforcement for continued alcohol use. Highlighting the potentially problematic nature of this negative-reinforcement based motivation for consuming alcohol, drinking to cope has been associated with consuming alcohol at greater quantities and also appears to increase the likelihood of an individual experiencing negative alcohol use-related consequences (Grant et al., 2007). Moreover, some research suggests that drinking to down-regulate negative affect states may place individuals at a heightened risk of alcohol dependence (Capenter & Hasin, 1999; Holahan, Moos, Holahan, Cronkite, & Randall, 2003).

In elaborating upon a potential link between shame-proneness and alcohol use, several theorists (e.g., Dearing et al., 2005; Potter-Efron, 2002; Tangney & Dearing, 2002; Wiechelt, 2007) have discussed the possibility that some shame-prone individuals fall into a perpetuating shame-alcohol use-shame spiral, whereby they rely on alcohol to cope with and ameliorate pervasive and acutely painful experiences of negative affect. According to the shame-alcohol use-shame spiral hypothesis, alcohol use is functional in the short term in that it effectively dulls or down-regulates the experience of aversive negative affect states (Tangney & Dearing, 2002). However, the long-term reliance on alcohol as a coping mechanism comes at a cost to the individual, with an increase in negative alcohol-related consequences such as risk-taking behaviour, dependence, self-care neglect, and declines in occupational, social and interpersonal functioning. In turn, negative alcohol-related consequences and a perceived lack of control over drinking serve as additional sources of shame and negative affect for the individual and consequently, serve to maintain the shame-alcohol use-shame spiral (Tangney & Dearing, 2002; Wiechelt, 2007).

While there is some research indicating that shame-prone individuals are more likely to experience substance use problems (e.g., Dearing et al., 2005; Meehan et al. 1996; O'Conner et al. 1994), there does not appear to have been any *direct* empirical investigation of the shame-alcohol use-shame hypothesis. More specifically, there does not appear to have been any research conducted exploring the unique reasons for which shame-prone (or guilt-prone) individuals *are* motivated to drink. Likewise, there does not appear to have been any formal investigation of the beliefs that shame and guilt-prone individuals have with regards to the expected effects of alcohol.

In order to provide an initial test of the shame-alcohol use-shame spiral hypothesis, research examining relationships between self-conscious affective style (i.e., shame and guilt-proneness) and motivations for consuming alcohol is needed. That is, research is needed to ascertain whether or not shame-prone individuals report that they *are* inclined to consume alcohol in order to down-regulate negative affect states. Similarly, research is also needed to determine whether or not shame-proneness is associated with the belief that alcohol has short-term tension reduction properties, as is suggested by the shame-alcohol use-shame spiral hypothesis. Finally, research is needed to determine whether or not shame-prone individuals report that alcohol consumption results in significant difficulties with emotional-deregulation and negative affect experiences.

Alcohol Use-Related Guilt

While a hypothesised relationship between shame and drinking as a means of down-regulating this aversive emotion has been elaborated upon by

several theorists (e.g., Dearing et al., 2005; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007), there does not appear to be any evidence to suggest that experiences of guilt are associated with drinking to cope. Indeed, research indicates that guilt-proneness tends to be unrelated or inversely related to proneness to negative affect and psychopathology in general (Tangney et al., 1992, 1995). Moreover, guilt-proneness has been found to be associated with the successful regulation of alcohol use (Dearing et al., 2005)

Indeed, while it appears that guilt-proneness is associated with favourable self-regulatory outcomes in terms of alcohol use, it also seems plausible that alcohol use-related guilt (i.e., guilt experienced *as a result* of transgressive alcohol use) may be associated with favourable and adaptive functioning outcomes. Consistent with research indicating that guilt is associated with lessons learnt (Tangney & Dearing, 2002), it is seems plausible that feelings of regret and remorse (i.e., guilt-related phenomenology) experienced as a result of problematic alcohol use may help compel individuals to address their alcohol use for the better. For example, an individual who engages in a heavy drinking episode which results in significant negative consequences may resolve to never drink in such a manner again due to an aversive experience of guilt. Or in another example, an individual who experiences alcohol use-related guilt as a result of neglecting parental responsibilities due to their drinking may become motivated to seek out assistance to address their problematic alcohol use. Indeed, it seems plausible that an array of prototypical guilt-related phenomenology experienced *as a result* of transgressive drinking may be help promote adaptive behaviour change and favourable alcohol-use related outcomes. Such phenomenology includes feelings of regret and remorse, a strong negative evaluation of the

transgression behaviour, an appreciation for the effects of one‘s behaviour on others, and the planning of reparative action behaviour (Tangney et al., 2007).

Are Experiences of Shame and Guilt Implicated in the Motivation and Readiness to Change Alcohol Consumption Behavior?

A second promising area of future research pertaining to shame, guilt, and alcohol use regulation, concerns the potential role of the two emotions in the motivation and readiness to change drinking behaviour. Readiness and motivation to reduce alcohol consumption have been identified as important factors that contribute to decreased alcohol consumption among problem drinkers (Miller & Rollnick, 2002; Rollnick, Miller, & Butler, 2008).

In the intentional cessation of unhealthy, hazardous, or otherwise harmful behaviours (e.g., alcohol and other substance abuse), a number of researchers have argued that individuals can be categorized according to the extent and nature of their readiness (e.g., Connors, Donovan, & DiClemente, 2001; Prochaska, DiClemente, & Norcross, 1992). The *Transtheoretical Model* (TTM) of behaviour change, developed by Prochaska and DiClemente (1983), is a stage-based model which argues that an individual‘s initial readiness to change his or her behaviour can be characterized and described by the stages of *Precontemplation*, *Contemplation,* and *Action*.

The highly influential Transtheoretical Model of behaviour change has been used extensively to explore the ways in which people adaptively change their behavior for the better in a number of important life and health domains (Prochaska & Velicer, 1997). This include investigations concerning the nature of

behaviour change in an array of health-related behaviour domains including smoking cessation (e.g., Prochaska & DiClemente, 1983), exercise behavior (e.g., Marshall & Biddle, 2001), safer-sex practices and contraception use (e.g. Grimley, Prochaska, Velicer, & Prochaska, 1995), weight loss (e.g., Laforge, Velicer, Richmond, & Owen, 1999; Wee, Davis, & Phillips, 2005), behaviors to reduce sun exposure (e.g., Weinstock, Rossi, Redding, Maddock, & Cottrill, 2000), healthful food consumption (Armitage, Sheeran, Conner, & Arden, 2004), and reducing alcohol use (e.g., Isenhart, 1997; Willoughby & Edens, 1996; DiClemente & Hughes, 1990).

In addition to research looking at the processes of change, the Transtheoretical Model of behaviour change has gained prominence in clinical practice as a tool to guide the development of appropriate interventions for individuals who are experiencing substance use problems (Connors et al., 2001). More specifically, it has been found to be desirable for clinicians to tailor the content of their interventions based on a subjective assessment as to how ready individuals are to address their problematic substance use (Rollnick et al., 2008). For example, a person *not* contemplating change might benefit from an intervention which involves a non confrontational exploration of the ways in which their situation might be improved should they address their problems with alcohol (Miller & Rollnick, 2002). In contrast, an individual ready to take action to address their problematic alcohol use might benefit from an intervention which focuses on strategies which they can employ in order to help control or limit their alcohol use (Connors et al., 2001).

The *Precontemplation* stage of the TTM describes individuals who are not currently, or in the immediate future, planning to make a change with regards

their behaviour (Prochaska et al., 1992). Individuals in the *Precontemplation* stage often lack the awareness that their behaviour may be problematic. Alternatively, those individuals who *are* aware of the problematic nature of their behaviour may be in a state of denial that their quality of life can be improved with behaviour modification (Connors et al., 2001; DiClemente & Prochaska, 1998). An example of an individual in the *Precontemplation* stage is someone who is experiencing significant alcohol-related problems but is unaware, unable, or unwilling to acknowledge that that a reduction in alcohol consumption would be associated with positive outcomes (e.g., for health, relationship quality etc).

While the *Precontemplation* stage of the TTM is characterized by an inability or unwillingness to consider a change in behaviour, individuals in the *Contemplation* stage actively recognize and acknowledge their current behavior is problematic (Prochaska et al., 1992). As such, these individuals are aware of the benefits associated with behaviour change and the cons associated with failing to do so (Prochaska & Velicer, 1997). *Contemplators* may also tentatively seek to identify possible courses of actions that might help to change their behaviour for the better, but experience considerable uncertainty and ambivalence towards actually initiating change (Connors et al., 2001). An example of an individual in contemplation stage of change is someone who acknowledges that their alcohol consumption is problematic and is aware that their health or other variables (e.g., behaviour, relationships etc) may improve if they reduce their drinking. However, the *contemplating* individual is also aware that they will lose some of the perceived benefits associated with their drinking should they reduce their alcohol intake. Thus, despite being aware of the negatives associated with

their drinking, the individual remains ambivalent towards adaptive behaviour change (DiClemente & Prochaska, 1998).

Considered to be a more proactive stage of the TTM, individuals in the *Action* stage go beyond mere contemplation and actually take steps to actively change their behaviour (Prochaska et al., 1992). This overt change in behaviour made by the individual in the *Action* stage is substantial enough so that the individual‘s quality of life or health status is improved and the various risks and negative consequences associated with the problematic behaviour are greatly reduced (DiClemente & Prochaska, 1998). An example of an individual in the *Action* stage of change is someone who deliberately reduces his or her alcohol consumption to a level that is substantially less harmful than what they had been habitually consuming previously (e.g., reducing alcohol intake from two bottles of wine a night to half a bottle). This individual may also have accessed relevant supports (e.g., friends, family, Alcoholics Anonymous, alcohol-related treatment services, General Practitioner) to help with their commitment and resolve to change (Connors et al., 2001).

A number of variables have been identified that predict an individual‘s readiness for changing problematic drinking behaviour including attitudes, self-efficacy beliefs, mortality salience, behavioral intentions, and commitment to change (Connors et al., 2001; Miller & Rollnick, 2002; Rollnick et al., 2008). However, at present, there does not appear to have been any significant empirical exploration of the respective roles that the transgression-elicited self-conscious emotions of shame and guilt each play in predicting an individual‘s readiness to change problematic drinking behaviour.

Given that shame is characterized by problem avoidance, concealment, denial and the tendency to blame external factors for problematic behavior (Tangney et al., 2007), it may be that experiences of alcohol use-related shame serve to impede an individual from taking steps to actively address their problematic alcohol use. That is, alcohol use-related shame may forestall precontemplative or contemplative individuals from moving forward and instigating adaptive, action-related behaviour change with regards to the regulation of their alcohol use. On the other hand, experiences of guilt are associated with lessons learnt, the discontinuation of problematic transgressive behavior, and a desire to make amends or "fix" one's misdeeds (Amodio et al., 2007; Tangney & Dearing, 2002). Given these adaptive self-regulatory outcomes associated with guilt, it seems plausible that alcohol use-related guilt is a predictor, or indeed, *precursor* to readiness to change drinking behavior. That is, alcohol use-related guilt may compel an individual to better acknowledge and address problematic alcohol consumption which in turn, may increase their motivation or readiness to change their drinking behaviour.

In light of the paucity of shame, guilt, and alcohol use regulation literature, an investigation of the respective relationships between alcohol use-related shame and guilt and readiness or motivation to change drinking behaviour appears warranted. More specifically, further research is needed to determine whether alcohol use-related shame impedes an individual's readiness to actively address problematic alcohol use and if alcohol use-related guilt is a more substantial predictor of readiness and motivation to change drinking behaviour. However, a domain-specific measure that assesses alcohol use-related shame and guilt would first need to be developed in order to facilitate such research.

Literature Review Summary

To summarise, Chapter 1 reviewed the key similarities and differences between shame and guilt and explored the nature of transgressions which typically give rise to the two emotions. Chapter 2 explored the strengths and limitations of commonly used approaches to assessing shame and guilt-proneness and a discussion was made with regard to the desirability of exploring the unique correlates of domain-specific shame and guilt experienced in discrete life contexts. Chapter 3 explored the phenomenology of shame and literature was reviewed indicating that shame fails to inhibit potentially problematic behaviours and furthermore, is associated with a notable array of interpersonal and life difficulties. Chapter 4 explored the phenomenology of guilt and literature was reviewed which suggests that guilt is inversely related to risky and hazardous behaviours and moreover, is associated with numerous adaptive functioning variables and positive outcomes. Finally, Chapter 5 reviewed literature pertaining to shame, guilt, and alcohol use regulation, with a focus on two promising avenues for future research.

Aims of the Investigation

Given the preliminary nature of the literature exploring links between shame, guilt, and the regulation of alcohol use, further research is needed. More specifically, there is a need to replicate and extend upon past research which suggests that shame-proneness is positively linked with disordered alcohol use while there is a negative relationship between guilt-proneness and alcohol

problems. Moreover, as there does not appear to have ever been any *direct* empirical investigation of the shame-alcohol use-shame hypothesis, further research is needed to explore the unique reasons and motivations for which shame-prone and guilt-prone individuals are motivated to consume alcohol. Likewise, additional research is needed to investigate the beliefs that shame and guilt-prone individuals have with regards to the expected effects of alcohol.

In addition to the need for further research examining links between self-conscious affect style and regulation of alcohol use, research exploring the unique correlates of shame and guilt experienced specifically in response to alcohol use also appears warranted. At present, it appears no such empirical investigation has even been undertaken and it remains unknown if or not experiences of alcohol use-related shame and or guilt are associated with an enhanced desire and readiness to change drinking behaviour. However, as there is currently no self-report tool that allows for the assessment of alcohol use-related shame and guilt, it would first be necessary to create an appropriate and psychometrically sound measure of these constructs.

With these noted gaps in the literature and the aforementioned overarching research goals in mind, the *first* research aim is to replicate and extend on past research by conducting an in-depth investigation of the respective relationships between shame and guilt-proneness with problematic alcohol use. This will include and investigation of the respective relationships between the two affect styles with alcohol-related disorders, deleterious consequences experienced as a result of alcohol use, impaired control over drinking, and heavy episodic drinking patterns. In addition to replicating and extending on past research exploring links between self-conscious affect style and disordered

alcohol use, such an investigation would also provide clarification as to whether and shame and guilt-proneness are differently related to a range of self-regulation behaviors pertinent to alcohol use.

The *second* aim of the present research is to test several hypotheses that may help explain the seemingly divergent implications of shame and guilt-proneness with regards to the regulation of alcohol use. This will include an exploration the unique correlates of self-conscious affect style with self-reported reasons for drinking, alcohol outcome expectancies, the use of drinking-related protective behavioural strategies, drinking-related perceptions, and the reaching of alcohol use milestones. This investigation would allow for the identification of variables which may help explain what appears to be a positive relationship between shame-proneness and disordered alcohol use and a seemingly negative relationship between guilt-proneness and alcohol problems. Moreover, such an investigation may also allow for the identification of possible avenues of intervention for the shame-prone individual experiencing problematic alcohol use.

The *third* aim of the investigation is to develop and psychometrically validate a brief, self-report measure assessing alcohol use-related shame and guilt which can be used in clinical and research settings. This measure would allow for the identification of clinically relevant experiences of alcohol use-related shame and guilt and would also allow for research exploring the unique correlates of the two constructs. As part of the validation process of this new tool, the present research also aims to explore the respective relationships between alcohol use-related shame and guilt with alcohol consumption patterns, alcohol disorders, and associated negative consequences. Finally, this research will aim to examine the

respective relationships between alcohol use-related shame and guilt with individual differences in readiness to change drinking behaviour.

CHAPTER 6

Study 1: Shame and Guilt-Proneness: Implications for Alcohol-Related Disorders, Hazardous Alcohol Consumption Patterns, and Alcohol-Related Negative Consequences

Shame and guilt are two closely related self-conscious emotions of negative affect that give rise to notably divergent motivational and self-regulatory behaviors (Tangney & Dearing, 2002). The two emotions are similar in that they both involve internal attributions for negative events and also have similar antecedents, typically a negative event involving the production of a transgressive behaviour that breaches internalized moral principles (Tangney, 1992). However, a key distinction between shame and guilt lies in the perceived role of the self in each emotion (Lewis, 1971; Tangney et al., 2007). With highly aversive experiences of shame, the individual focuses squarely on the *self* (e.g., "How could *I* have done that") with reprehensible behaviour seen as evidence that the self is flawed (e.g., "I am a *bad person*"). On the other hand, the individual experiencing unpleasant but less aversive feelings of guilt is focused not on the self, but squarely on their problematic behaviour (e.g., "How could I have *done that")* and ways in which they may remedy the situation (e.g., "I have to fix this").

While guilt has been found to be positively associated with a host of adaptive functioning variables including dispositional self-control (Tangney et al., 2004), constructive responses to anger (e.g., Tangney et al., 1996), and healthy interpersonal functioning (e.g., Baumeister, Stillwell, & Heatherton, 1994), shame has been found to be associated with a gamut of difficulties

including psychopathology (Tangney et al., 1992), anger and hostility (Tangney et al., 1996), deficits in self-control (Tangney et al., 2004), and interpersonal problems (Tangney, 1995). Further examining the role of shame and guilt and their respective relationships with self-regulatory behaviours, several researchers have sought to determine whether the two emotions are linked to substance use-related problems (e.g., Dearing et al., 2005; Meehan et al. 1996; O'Conner et al., 1994).

Based on clinical experience and case studies, clinicians Fossum and Mason (1986) and Potter-Efron (2002) have theorised with regard to possible links between self-conscious emotions and alcohol problems, positing a relationship between the experience of shame and addiction. From a family systems perspective, Fossum and Mason (1986) elaborate upon the destructive nature of shame in the family context and posit that addiction and shame are inherently intertwined. Potter-Efron (2002) argues that while not all alcohol misusers are shame-prone and not all shame-prone individuals have substance misuse problems, shame is problematic in that it actively "…promotes addictive processes" (p. 112). In their discussion of a potential link between shame-proneness and alcohol problems, Tangney & Dearing, (2002) have elaborated on the possibility that some shame-prone individuals experience a sustained shame-alcohol use-shame spiral, whereby they rely on alcohol to cope with negative emotional experiences. Tangney and Dearing suggest that while this drinking-to-cope strategy might be functional in the short term, the long-term reliance on alcohol as a coping mechanism comes at a cost to the shame-prone individual, with an increase in negative alcohol-related consequences including dependence and declines in functioning in important life domains. In turn, these negative

alcohol-related consequences give rise to additional sources of shame for the individual and serve to maintain the shame-alcohol use-shame spiral (Tangney & Dearing, 2002; Wiechelt, 2007).

Despite such a theorised relationship between shame and the onset and maintenance of substance-related disorders, Dearing et al. (2005) note that there have been relatively few empirical investigations that have sought to explore relationships between shame, guilt, and substance problems using well validated measures that differentiate between the two closely related self-conscious emotions. More specifically, Dearing et al. (2005) argue that several of the small number of studies seeking to link self-conscious emotions with substance use-related disorders have significant limitations in that they either failed to assess shame or guilt as discrete emotions or only consider one emotion, either shame or guilt, in their analysis (e.g., Cook, 1988; Quiles, Kinnunen, & Bybee, 2002; Wiechelt, & Sales, 2001). As shame and guilt are emotions which frequently co-occur but have divergent implications for a host of psychological functioning variables, Tangney and Dearing (2002) argue that it is crucial to capture the dynamics and unique features of these distinct emotions when exploring their respective relationships with other constructs of interest (e.g., substance use). Tangney (1996) further notes that the failure to recognize and assess shame and guilt as distinct and separable constructs can lead to misleading results and erroneous conclusions.

However, two early studies looking at shame, guilt, and addiction that did adequately distinguish between shame and guilt were conducted by Meehan et al. (1996) and O'Conner et al. (1994). Using the TOSCA (Tangney et al., 1989) to determine shame and guilt-proneness, Meehan et al. (1996) and O'Conner et al.

(1994) compared treatment-seeking substance dependent individuals to non-dependent controls on indices of shame and guilt-proneness. Suggesting that guilt-proneness may help buffer an individual from substance misuse problems, both Meehan et al. (1996) and O'Conner et al. (1994) found that mean levels of guilt-proneness were *lower* for the substance-dependent groups than for comparison groups comprising individuals with non-problematic substance use. In contrast, and hinting at positive relationship between shame and addiction, both studies found that mean levels of shame-proneness were *higher* for individuals with substance dependence problems than for the community drawn comparison groups.

Dearing et al. (2005) note that while the findings of Meehan et al. (1996) and O'Connor et al. (1994) are consistent with the hypothesis that guilt-proneness is inversely related to substance use problems while shame-proneness shares a positive relationship, they argue that the interpretation of these results is difficult as the authors of both studies failed to provide sufficient information regarding the demographic variables of the community drawn comparison groups used in each study. Specifically, Dearing et al. (2005) argue that there were likely notable differences between groups on important variables such as socioeconomic status, employment status, and available social supports. They further note that it is difficult to determine whether mean differences in shame and guilt-proneness across groups can be attributed to problematic substance use, treatment process and involvement, and or other potentially confounding variables.

Noting the deficiencies of past research and in particular, the general failure of researchers to employ measures that sufficiently take into consideration the key differences between shame and guilt, Dearing et al. (2005) sought to

explore relationships between shame, guilt, and substance-related problems using multi-sample correlation analysis. In two samples of undergraduates, Dearing et al. (2005) administered the TOSCA along with the alcohol problems scale from the MCMI-II (Million, 1987) in one study, and the revised scale from the later MCMI-III (Million, 1994) in a second study. Suggesting that shame and guilt have divergent implications for the experience of problematic alcohol use, guilt-proneness was inversely related to alcohol problems as assessed by the MCMI scales in both samples, while shame-proneness was found to be positively related.

While Dearing et al.'s (2005) findings provide further support for the notion that shame-proneness is positively related to alcohol disorders and guilt-proneness is inversely related to such problems, the alcohol problems scales of the MCMI-II (Million, 1987) and MCMI-III (Million, 1994) have several notable limitations for assessing hazardous alcohol use. Firstly, while the MCMI alcohol problems scales assess the test-taker's own perception of their alcohol use with items such as *"I have a drinking problem that I've tried unsuccessfully to end"*, they do not effectively and explicitly assess the actual quantity and frequency of alcohol use. Relying on individuals to *self*-perceive that they have an alcohol use problem can be considered problematic in that not all individuals with such problems have insight and awareness that they are dependent on or are abusing alcohol (Miller & Rollnick, 2002). Less subjective markers of problematic alcohol use, including the frequency of which it is consumed and the typical quantity of alcohol consumed per drinking occasion are robust markers of problematic alcohol use, which are not compromised the potentially confounding variable of the extent to which individuals perceive that they have a problem (Canagasaby & Vinson, 2005). A second notable limitation of the MCMI scales

is that as compared to more recently developed measures (e.g., Kahler, Strong, & Read, 2005; Read, Kahler, Strong & Colder, 2006), they do not adequately assess the broad range of negative consequences associated with alcohol misuse. As such, the MCMI scales can be considered problematic or limited by the fact that they do not allow for the broad assessment of the extent, quantity, or nature of the negative alcohol use-related consequences an individual might be experiencing.

Recent research has found that although alcohol use-related problems fall on a single continuum of severity (Kahler et al., 2005), they can also be conceptually be grouped using factor analytic approaches (Read et al., 2006). For example, Read et al. (2006) found that alcohol use problems can be grouped according to social and interpersonal problems, impaired control of alcohol use, negative self-perception arising as a result of drinking, engagement in risky and impulsive behaviours, physical dependence indicators, neglect of self-care, academic and occupational consequences, and hazardous blackout drinking (e.g., drinking until passing out). However, at present it does not appear that there has been any in-depth and comprehensive investigation as to whether shame and guilt-proneness are related to the experience, or avoidance, of more discrete and domain-specific alcohol-related problems.

Further research exploring the respective relationships between shame, guilt and alcohol problems holds potential importance on several fronts. Firstly, such research may result in a greater understanding of the implications of the two emotions with regards to the development, maintenance, or the successful avoidance of alcohol use disorders and the experience of negative alcohol use-related consequences. Moreover, research examining links between shame, guilt, and alcohol use may also help identify important variables which are potential

targets of intervention in the prevention or treatment of alcohol use problems. In light of the desirability of further research exploring relationships between self-conscious affect style and alcohol problems, the present study aims to extend past findings (e.g., Dearing et al., 2005) and provide a more in-depth exploration of relationships between shame and guilt-proneness with alcohol use disorder symptomatology and the experience of negative alcohol use-related consequences. In doing so, the present study will also aim to determine whether or not shame and guilt-proneness relate to particular patterns of alcohol use including the frequency and typical quantity of consumption, as well as instances of heavy and potentially hazardous episodic drinking. An additional aim of the present study is to examine relationships between shame and guilt-proneness and the experience of discrete alcohol use-related consequences including dependence, loss of control over drinking, negative self-perceptions, interpersonal consequences, risky behaviours while drinking, and occupational and academic-related negative consequences.

Based on the findings of Dearing et al. (2005), it was expected that shame-proneness would be positively related to alcohol use disorder symptomatology as assessed by the Alcohol Use Disorders Identification Test (AUDIT: Saunders, Aasland, Babor, de la Fuente, & Grant, 1993), negative alcohol use-related consequences as assessed by the Young Adult Alcohol Consequences Questionnaire (Read et al., 2006), and impaired control over alcohol intake as assessed by the Impaired Control Scale (Heather, Tebbutt, Mattick, & Zamir, 1993). In contrast, it was expected that guilt-proneness would be inversely related to alcohol use-related disorder symptomatology, associated negative consequences, and impaired control over alcohol intake. Given the lack

of research linking shame and guilt-proneness to alcohol consumption behavioural patterns, including quantity and frequency of alcohol use and instances of heavy episodic drinking, the study reported in this chapter sought to determine whether such relationships exist and if they do, to clarify their direction.

Method

Participants

In Sample 1, participants were 428 individuals drawn from the local community and from a variety of degree programs at the University of Tasmania, Australia. The ages of participants ranged from 17 to 69 (M = 23.98, SD = 9.03). The mean age for the 107 male participants was 25.67 (SD = 10.14), while the mean age of the 314 female participants was 23.45 (SD = 8.61). Three participants failed to state their age while another four failed to state their gender. With regard to ethnicity, 91% were White, 4% were Asian, 1% was Black, and 4% were of other or mixed ethnicity. Eleven individuals were excluded from Sample 1 due to missing data or for failing to complete the measure of self-conscious affect style, the TOSCA-3 (Tangney et al., 2000).

Participants in Sample 2 were 281 individuals also drawn from the local community and variety of degree programs at the University of Tasmania, Australia. The ages of participants ranged from 17 to 62 with a mean age of 22.22 (SD = 7.83). The mean age for the 74 male participants was 21.94 (SD = 6.97), while the mean age of the 207 female participants was 22.32 (SD = 8.12). With regard to ethnicity, the sample was predominately White (90%), 4% were Asian, 1% were Black, 1% was Hispanic, and 4% were of other or mixed ethnicity.

Eighteen individuals were excluded from Sample 2 due to missing data or for failing to complete the TOSCA-3 (Tangney et al., 2000) according to standardized instructions. There was no overlap in participants included in Samples 1 and 2.

Materials

Test of Self-Conscious Affect-3: Short Version (Sample 1 and Sample 2)

The Test of Self-Conscious Affect-3 (TOSCA-3: Tangney et al., 2000) is a widely used scenario-based measure that yields indices of Shame-proneness, Guilt-proneness, Externalization, and Detachment/Unconcern. Respondents are presented with a series of 11 negative scenarios they may encounter in daily life (see Appendix A). A sample scenario from the TOSCA-3 is "*At work, you wait until the last minute to plan a project, and it turns out badly"*. The response options that follow this scenario are "*You would feel incompetent"* (shame response), *You would feel: "I deserve to be reprimanded for mismanaging the project"* (guilt response), *You would think: "There are never enough hours in the day"* (externalization), and *You would think: "What's done is done"* (detached).

Respondents are required to rate their likelihood of each response on a five-point scale with end-point designations of *not likely* (1) and *very likely* (5). In Sample 1, Cronbach's alpha statistics for the TOSCA-3 subscales were .78 for Shame-proneness, .66 for Guilt-proneness, .65 for Detachment/Unconcern, and .65 for Externalization. In Sample 2, Cronbach's alphas were .69 for Shame-proneness, .68 for Guilt-proneness, .66 for Detachment/Unconcern, and .73 for Externalization. For the purposes of the study reported in this chapter, only the shame and guilt-proneness subscales of the TOSCA-3 were used.

Alcohol Use Disorder Identification Disorder Test (Sample 1 and Sample 2)

To assess alcohol use disorder symptomatology, The *Alcohol Use Disorders Identification Test* (AUDIT: Saunders et al., 1993) was used (see Appendix B). Developed by the World Health Organization, the AUDIT is 10-item screening assessment used to identify hazardous and harmful alcohol consumption. The measure assesses three conceptual domains: frequency and quantity of alcohol intake (3 items), dependence indicators (3 items), and adverse alcohol use-related consequences (4 items). An example item from the AUDIT is "*How often do you have six or more standard drinks on one occasion?" w*ith response options of *Never*, *Less than monthly*, *Monthly*, *Weekly*, and *Daily or Almost daily*. Responses to each question are scored from 0 to 4, giving a maximum possible score of 40. Higher scores on the AUDIT are indicative of progressively more hazardous drinking and an increasing likelihood of dependence.

The AUDIT is widely used and its psychometric properties have been found to be strong (Reinert & Allen, 2007). Daeppen, Yersin, Landry, Pecoud and Decrey (2000) report a Cronbach's alpha of .85 and a test-retest correlation of .88 at a 6 week interval in a sample of 332 primary care patients. The AUDIT demonstrated good internal consistency in the present samples, with Cronbach's alphas of .81 and .80 for Samples 1 and 2, respectively.

Standard Drink Estimation Guide (Sample 1 and Sample 2)

A large body of research suggests that many individuals lack knowledge of standard drink volumes and as a consequence, tend to be inaccurate in their

estimates of the alcoholic content of various beverages (Giacopassi & Stein 1989, 1991; Hasking, Shortell, & Machalek, 2005; Martin, Liepman, Nirenberg, & Young, 1991; White, Kraus, McCracken, & Swartzwelder, 2003). In turn, this typically leads to individuals erroneously underreporting their true level of alcohol consumption (White et al., 2005). To help participants more accurately report their true level of alcohol consumption on the AUDIT (Saunders et al., 1993) and other alcohol use measures, an adapted version of the *Standard Drink Guide* (Australian Government, 2007) disseminated by the Department of Health and Ageing was included in the questionnaire booklet (see Appendix C). The standard drink guide was accompanied with the rationale stating "Research suggests that the vast majority of us are inaccurate when we estimate how much we drink on each occasion. This guide is provided to help you estimate your current level of drinking for questions that will follow. The number of standard drinks for each beverage is in bold".

Impaired Control Scale (Sample 2)

The *Impaired Control Scale* (ICS: Heather et al., 1992) was used to assess perceptions of impaired control over alcohol use (see Appendix D). A three-part measure, Part 1 of the ICS assesses the degree to which an individual has attempted to exert control over their drinking in the preceding six months with an example item being "*I have tried to slow down my drinking*." Asked to rate the frequency of which each item has occurred during the past six months, responses are made on a five-point Likert-type scale with response options ranging between "*Never*" to "*Always*". Part 2 aims to measure the degree of success individuals have experienced in exerting control over their drinking during the past six

months with an example item being "*I have been able to stop drinking easily after one or two drinks*." Responses for Part 2 are made on the same scale described for Part 1 but an additional response option of "*Does not apply*" is provided to allow for occasions where the item did not accurately relate to the subject's experience (e.g., the individual made no attempts at controlling their drinking). Part 3 measures an individual's beliefs about their ability to control their alcohol use if it were attempted with an example item being "*I could slow down my drinking if I wanted to*". Responses are made on a five-point Likert-type scale with responses ranging between "Strongly Disagree" to "Strongly Agree".

Heather et al. (1992) found the ICS to be a valid and reliable instrument with good temporal stability and internal consistency. Heather et al. report Cronbach's alphas of .89, .94, and .95 for Parts 1, 2, and 3 of the ICS, respectively. In Sample 2, Cronbach's alphas were .90, .88, and .89, for Parts 1, 2, and 3, respectively.

Young Adult Alcohol Consequences Questionnaire (Sample 1 and Sample 2)

Negative alcohol use-related consequences were measured using the *Young Adult Alcohol Consequences Questionnaire* (YAACQ; Read et al., 2006). The YAACQ is a 48-item measure that assesses alcohol use-related consequences of varying severity across eight problem domains: Social consequences, impaired control, negative self-perception, self-care neglect, risky behaviors, academic/occupational consequences, physical dependence indicators, and blackout drinking (see Appendix E). Example items from the YAACQ are "*I have had a hangover (headache, sick stomach) the morning after I had been*

drinking" and "*My drinking has created problems between myself and my boyfriend/girlfriend/spouse, parents, or other near relatives*". Individuals are required to indicate whether they have experienced each alcohol use problem in the past year using a dichotomous (*Yes*/*No*) rating system. The YAACQ is a flexible measure that yields subscale scores and a total alcohol consequence score. Read et al. (2006) report Cronbach's alphas ranging from .70 to .91 for the YAACQ's eight subscales.

Kahler et al. (2005) used Rasch modeling of the YAACQ to create a unidimensional alcohol problem severity index which is acquired by summing 24 of the YAACQ's items. Kahler et al. (2005) report that the 24-item alcohol problem severity index has good internal consistency (Cronbach's alpha = .83). In the present study, Cronbach's alphas for the alcohol problem severity index were .89 and .90, for Samples 1 and 2, respectively.

Alcohol Use in Past Month Measures (Sample 1 and Sample 2)

Four self-generated items were used to assess alcohol use and drinking patterns in the past month (see Appendix F). To assess frequency of alcohol use in the past month, the item *"On how many days, in the past month, did you have some kind of beverage containing alcohol?"* with participants required to state the number of days. To assess typical quantity of alcohol consumed on days drinking, the item *"In the past month, when you were drinking alcohol, how many standard drinks did you usually have on any ONE occasion?"* was used, with participants required to indicate the number of standard drinks. To assess heavy episodic drinking, the item *"In the past month, how many times have you had [5 (men)/4 (women)] or more standard drinks at a single sitting?"* was

employed, with participants required to indicate the number of occasions. For this item, the number of standard drinks for each gender relate to what were the recommended limits set forth by the Australian Government's National Health and Medical Research Council in the Australian Alcohol Guidelines (NHMRC, 2001), with alcohol use above these levels associated with increasing risk of alcohol-related harm. To assess number of instances of drinking to intoxication, the item *"In the past month, how many times have you gotten intoxicated (i.e., drunk/wasted/blind/smashed) from drinking alcohol?"* was used, with participants required to indicate number of times.

Hazardous Alcohol Use in Past Year Measures (Sample 1 and Sample 2)

Two self-generated items were used to assess potentially hazardous episodic drinking instances (i.e., binge drinking) in the past year (see Appendix G). To assess the maximum number of drinks consumed in a two hour period, the item *"What is the greatest number of standard drinks you consumed in a 2-hour period during the past 12 months?"* was used, with participants required to state the number in standard drinks. To assess the maximum number of drinks consumed in a single drinking episode, the item *"What is the greatest number of standard drinks you consumed in a single drinking session (from start to finish) during the past 12 months?"* was included. Again, participants were required to respond according to number of standard drinks.

Alcohol Consumption Behavioural Intentions (Sample 2)

Adapted from similar measures used in studies by Neal and Carey (2004) and LaBrie, Quinlan, Schiffman, & Earleywine (2005), five items were used to

assess alcohol consumption behavioral intentions for the four weeks subsequent to the completion of the questionnaire (see Appendix H). To assess predicted frequency of alcohol consumption the item *"During the next 4 weeks, on how many days do you predict you will consume some kind of beverage containing alcohol?"* was used with participants required to indicate the number of days. To assess predicated quantity of alcohol consumed, the item *"During the next 4 weeks, when you are drinking alcohol, how many standard drinks do you predict you will generally have on any ONE occasion?"* was used, with participants required to report the number of standard drinks. Two items assessed predicted episodes of heavy episodic drinking: *"During the next 4 weeks, on how many occasions do you predict you will have [5 (men)/4 (women)] or more standard drinks at a single sitting?"* and *"During the next 4 weeks, how many times do you predict you will get intoxicated (i.e., drunk/wasted/blind/smashed) from drinking alcohol?"* with participants required to report the number of times for both items. The item *"During the next 4 weeks, what is the greatest number of standard drinks you predict you will consume in a single drinking session (from start to finish)?"* was used as an additional means of identifying predicted heavy episodic drinking episodes, with participants required to report the number of standard drinks.

Procedure

Approval to conduct Study 1 was obtained from The Tasmanian Social Sciences Human Research Ethics Committee (SS HREC) in 2007. Data was collected using questionnaire batteries presented in small booklets that were circulated in the years of 2008 and 2009. Participants were recruited through

advertisements placed on notice boards around the University of Tasmania, and those who were undergraduate psychology students received course credit for their participation. Participants were informed that the study was investigating relationships between personality, emotions, alcohol use, and behaviour, and that individuals who reported that they consume alcohol at any quantity and frequency were eligible for participation. They were provided with an information sheet (see Appendix I) and after their informed consent was gained, participants were provided with anonymous questionnaire booklets containing the TOSCA-3 (Tangney et al., 2000), various alcohol use-related measures, and a demographics questionnaire (see Appendix J). They were instructed to complete the booklet at a time that was convenient and to return it to the investigator in a provided sealed envelope. Participants were debriefed as to the aims of the study following the return of their questionnaire. The data collection procedure employed was identical for both samples although the questionnaire battery employed in Sample 2 contained additional measures, namely the Impaired Control Scale (Heather et al., 1993) and measures of alcohol consumption behavioural intentions.

Results

Analysis

Shame and guilt are both self-conscious emotions of negative valence that involve internal attributions for transgressions (Tangney et al., 2007). Due to these similarities and overlapping phenomenology, measures of shame and guilt correlate quite substantially. Consistent in magnitude and direction with past research (e.g., Tangney et al., 1992; Tangney, Niedenthal, Covert, & Barlow,

1998) the shame and guilt scales of the TOSCA-3 correlated positively and moderately in both Sample 1 (r =.41, p < .001, n = 428) and Sample 2 (r = .38, p < .001, n = 281).

In light of the substantial and frequently observed correlations between measures of shame and guilt, Tangney and Dearing (2002) recommend partialing out shared variance between shame and guilt to isolate "shame-free guilt" and "guilt-free shame" when examining relationships between shame, guilt, and other constructs (see also Paulhus, Robins, Trzesniewski, & Tracy, 2004). As compared to raw scores, Tangney and colleagues have repeatedly demonstrated that shame and guilt residuals each have functionally distinct and unique variance that will often serve as more substantial predictors of target variables (see Tangney & Dearing, 2002). Therefore, and to provide a more refined analysis, part-correlation analysis was used when exploring relationships between shame, guilt, and the alcohol use-related constructs assessed in the present study. This part-correlation analysis strategy was adopted for all subsequent analyses reported in this chapter and risidualized shame and guilt will remain the focus of results interpretation.

For this study and those that follow, Cohen's (1988) guidelines were employed when interpreting the effect size of relationships between variables. Cohen gives the following interpretation guidelines: small effect size, r = 0.1 − 0.23; medium, r = 0.24 − 0.36; large, r = 0.37 or larger.

Means and Standard Deviations

Descriptive statistics for the AUDIT, YAACQ, Alcohol Problem Severity Index, and TOSCA-3 for Sample 1 and Sample 2 are presented in Table 1. Total

scores of 8 or more on the AUDIT are recommended as an indicator of hazardous and harmful alcohol use, in addition to possible alcohol dependence (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). Mean scores on the AUDIT for both Sample 1 (M = 9.19, SD = 5.92) and Sample 2 (M = 9.64, SD = 5.90) were greater than 8, which indicates that both samples generally comprised individuals drinking at relatively high levels.

Table 2 shows descriptive statistics for alcohol use in the past month and hazardous alcohol use in the past year for Sample 1 and Sample 2. Descriptive statistics for alcohol consumption behavioural intentions for Sample 2 are displayed in Table 3. Table 4 shows descriptive statistics for the ICS for Sample 2.

Table 1

Descriptive Statistics for the Alcohol Use Disorders Identification Test (AUDIT),the Young Adult Alcohol Consequences Questionnaire (YAACQ), and the Test of Self Conscious Affect-3 (TOSCA-3) for Sample 1 and Sample 2

			Sample 1			Sample 2		
Measure	# of items	Possible Range	Mean	*SD*	Observed Range	Mean	*SD*	Observed Range
AUDIT								
Quantity and Frequency	3	0-12	5.36	2.49	0-12	5.47	2.37	1-11
Dependence Indicators	3	0-12	1.13	1.46	0-8	1.30	1.64	0-8
Adverse Consequences	4	0-16	2.70	3.04	0-14	2.86	3.02	0-14
Total AUDIT	12	0-40	9.19	5.92	0-29	9.64	5.90	1-32
YAACQ								
Social-Interpersonal Cons	6	0-6	2.39	1.82	0-6	2.35	1.73	0-6
Impaired Control	6	0-6	1.66	1.69	0-6	1.78	1.76	0-6
Negative Self-Perception	4	0-4	.90	1.30	0-4	.98	1.31	0-4
Self-care Neglect	8	0-8	1.92	2.04	0-8	2.10	2.14	0-8
Risk Behaviours	8	0-8	1.59	1.85	0-8	1.79	1.94	0-8
Academic/Occupational Cons	5	0-5	.74	1.20	0-5	.88	1.19	0-5
Physical Dependence	4	0-4	.42	.73	0-4	.51	.78	0-4
Blackout Drinking	7	0-7	2.86	2.15	0-7	3.27	2.28	0-7

Table 1 *(continued)*

Measure	# of items	Possible Range	Sample 1 Mean	Sample 1 *SD*	Sample 1 Observed Range	Sample 2 Mean	Sample 2 *SD*	Sample 2 Observed Range
Total YAACQ	48	0-48	12.47	9.66	0-45	13.64	9.99	0-41
Alcohol Problem Severity Index	24	0-24	7.09	5.21	0-21	7.72	5.41	0-21
TOSCA-3								
Shame-proneness	11	11-55	33.50	7.70	12-50	33.99	6.37	13-54
Guilt-proneness	11	11-55	46.09	4.93	28-55	45.59	4.96	22-55

Note. Sample 1 $N = 425$-428. Sample 2 $N = 281$. Increasing scores on the AUDIT indicate a greater likelihood of disordered alcohol use. Increasing scores on the YAACQ subscales indicate the greater experience of negative alcohol use-related consequences. Increasing scores on the TOSCA-3 subscales indicate greater levels of shame or guilt-proneness.

Table 2

Descriptive Statistics for Alcohol Use in the Past Month and Hazardous Alcohol Use in Past Year Measures for Sample 1 and Sample 2

	Sample 1			Sample 2		
Measure	Mean	*SD*	Observed Range	Mean	*SD*	Observed Range
Number of days alcohol consumed in past month	6.62	6.30	0-30	5.79	5.51	0-30
Average number of drinks per drinking occasion in past month	5.18	4.13	0-30	4.88	3.19	0-15
Number of times intoxicated in past month	1.92	2.84	0-17	1.67	2.23	0-10
Number of times ≥ 4 [females] or ≥5 [males] standard drinks consumed in a single session in past month	2.76	3.56	0-30	2.43	2.80	0-18
Maximum number of drinks in a two hour period in past year	6.23	4.13	0-25	6.78	4.50	0-30
Maximum number of drinks in a single drinking session (start to finish) in past year	11.82	8.17	0-50	12.01	7.28	0-40

Note. Sample 1 N = 425-427. Sample 2 N = 276 - 281.

Table 3

Descriptive Statistics for Alcohol Consumption Behavioural Intentions for the Next Month for Sample 2

Measure	Mean	*SD*	Observed Range
Predicted number of days alcohol consumed in the next month	5.16	4.98	0-28
Predicted number of standard drinks consumed per occasion in the next month	5.03	3.49	0-20
Predicted number of times intoxicated in the next month	1.63	2.28	0-16
Predicted number of times 4/5 or > drinks in single session in the next month	2.49	2.72	0-20
Predicted greatest number of standard drinks in a single session in the next month	7.78	5.44	0-30

Note. N = 281.

Table 4

Descriptive Statistics for the Impaired Control Scale for Sample 2

Measure	# of items	Possible Range	Mean	*SD*	Observed Range
Alcohol Use Limiting Attempts Made During the Past 6 months	5	0-20	7.30	5.10	0-20
Perceived Alcohol Use Limiting Failure During the Past 6 Months	10	10-50	19.71	7.50	10-37
Inability to Control Alcohol Use Belief	10	10-50	18.31	6.77	10-47

Note. N = 277 - 281.

Shame, Guilt, and Alcohol Use Disorders

Relationships between shame and guilt-proneness, the AUDIT, and AUDIT subscales for Sample 1 and Sample 2 are presented in Table 5. As can be seen, there was a significant, small-magnitude positive relationship between guilt-free shame and total AUDIT in both Samples 1 and 2. While guilt-free shame was unrelated to the quantity and frequency of alcohol use as assessed by the AUDIT in both Sample 1 and 2, guilt-free shame positively correlated with alcohol dependence indicators and the experience of adverse alcohol use-related consequences in both samples, although the magnitude of these relationships was small.

Table 5

Relationships Between Shame and Guilt-Pronenes and the Alcohol Use Disorders Identification Test for Sample 1 and Sample 2

	Bivariate Correlations		Part Correlations	
Measure	Shame	Guilt	Shame	Guilt
AUDIT				
Quantity and Frequency				
Sample 1	-.06	-.15**	.00	-.14**
Sample 2	-.06	-.12*	-.01	-.11
Dependence Indicators				
Sample 1	.09	-.10*	.15**	-.16**
Sample 2	.09	-.09	.13*	-.14*
Adverse Consequences				
Sample 1	.06	-.14**	.13**	-.18**
Sample 2	.15*	-.07	.19**	-.14*
Total AUDIT				
Sample 1	.03	-.16**	.11*	-.19**
Sample 2	.08	-.11	.13*	-.15*

Note. * $p < .05$. ** $p < .01$. Sample 1 $N = 425$ - 428. Sample 2 $N = 281$.

In contrast, shame-free guilt demonstrated a significant, small-magnitude, negative relationship with total AUDIT in both Samples 1 and 2 (see Table 5). Significant, small-magnitude, negative correlations were also found between shame-free guilt with dependence indicators and the experience of adverse alcohol use-related consequences across both samples. While there was a negative relationship of small magnitude between shame-free guilt and the quantity and frequency of alcohol use as assessed by the AUDIT in Sample 1, this finding was not replicated in the lesser powered Sample 2.

Shame, Guilt, and Negative Alcohol Use-Related Consequences

Relationships between shame and guilt-proneness, the YAACQ, YAACQ subscales, and Kahler et al.'s (2005) Alcohol Problem Severity Index are presented in Table 6. As can be seen, guilt-free shame correlated significantly and positively with total YAACQ and the alcohol problem severity index in both Samples 1 and 2, although the magnitude of these relationships was small. With regard to the YAACQ's subscales, guilt-free shame correlated positively and significantly with impaired control, negative self-perception, and academic/occupational consequences in both Samples 1 and 2. However, these relationships were of small magnitude. Significant positive, small-magnitude correlations were also found between guilt-free shame and social and interpersonal consequences (Sample 2 only), risk taking behaviour (Sample 2 only), self-care neglect (Sample 1 only), and blackout drinking (Sample 2 only). However, given that these relationships between guilt-free shame and lower order YAACQ subscales were not replicated across both Samples 1 and 2, these findings should be interpreted tentatively.

Table 6

Relationships Between Shame and Guilt-Proneness, the Young Adult Alcohol Consequences Questionnaire, and the Alcohol Problem Severity Index for Sample 1 and Sample 2

	Bivariate Correlations		Part Correlations	
Measure	Shame	Guilt	Shame	Guilt
YAACQ				
Social-Interpersonal Cons				
Sample 1	.02	-.12*	.08	-.14**
Sample 2	.14*	-.10	.19**	-.17**
Impaired Control				
Sample 1	.08	-.06	.11*	-.10*
Sample 2	.10	-.07	.14*	-.12*
Negative self-perception				
Sample 1	.13**	-.02	.15**	-.08
Sample 2	.22**	-.08	.21**	-.01
Self-care Neglect				
Sample 1	.05	-.09	.10*	-.12*
Sample 2	.09	-.02	.10	-.05
Risk Behaviours				
Sample 1	-.05	-.17**	.02	-.16**
Sample 2	.11	-.18**	.19**	-.24**
Academic/Occupational Cons				
Sample 1	.04	-.11*	.10*	-.14**
Sample 2	.09	-.06	.12*	-.10
Physical Dependence				
Sample 1	-.03	-.09	.01	-.08
Sample 2	.02	-.10	.06	-.12*
Blackout Drinking				
Sample 1	.02	-.11*	.08	-.14**
Sample 2	.07	-.19**	.15*	-.23**
Total YAACQ				
Sample 1	.04	-.13**	.10*	-.16**
Sample 2	.14*	-.12	.20**	-.18**
Alcohol Problem Severity Index				
Sample 1	.05	-.13**	.11*	-.17**
Sample 2	.14*	-.10	.19**	-.17**

Note. * $p < .05$. ** $p < .01$. Study 1 $N = 425$ - 427. Study 2 $N = 281$.

With regards to shame-free guilt, significant inverse, small-magnitude relationships were found with total YAACQ and the alcohol problem severity index across both samples. Consistent inverse relationships, ranging between small and moderate in magnitude, were also found between shame-free guilt and impaired control over drinking, social and interpersonal consequences, risk taking behaviours, and blackout drinking in both Samples 1 and 2. Albeit in an inconsistent manner, significant small-magnitude negative relationships between shame-free guilt and lower order YAACQ subscales were found for self-care neglect (Sample 1 only), academic and occupational consequences (Sample 1 only), and physical dependence (Sample 2 only).

Shame, Guilt, and Impaired Control over Alcohol Consumption

Relationships between shame and guilt-proneness, and the ICS for Sample 2 are presented in Table 7. As can be seen, guilt-free shame was positively and significantly associated with a perceived need to limit alcohol intake, the perception that one has failed to successfully control their alcohol use in the past six months, and the believed inability to control alcohol use should limit attempts be made in the future. These relationships were all of a small magnitude.

Table 7

Relationships Between Shame and Guilt-Proneness and the Impaired Control Scale (Sample 2)

	Bivariate Correlations		Part Correlations	
Measure	Shame	Guilt	Shame	Guilt
Alcohol Use Limiting Attempts Made	.21**	.10	.19**	.02
Perceived Limiting Failure	.17**	-.09	.22**	-.17**
Inability to Control Alcohol Use Belief	.09	-.18**	.17**	-.23**

Note: * $p < .05$. ** $p < .01$. $N = 277$ - 281.

A generally opposite picture emerged between shame-free guilt and impaired control over alcohol consumption. While shame-free guilt was unrelated to the perceived need to limit alcohol intake, small-magnitude relationships were found between shame-free guilt with a greater perceived success at limiting alcohol intake in the past six month and a more optimistic belief that one could successfully limit alcohol intake should limiting attempts be made in the future.

Shame, Guilt, Alcohol Use in Past Month, and Hazardous Alcohol Use in Past Year

Relationships between shame and guilt-proneness with alcohol use in the past month and hazardous alcohol use in the past year for Samples 1 and 2 are presented in Table 8. Here it can be seen guilt-free shame was consistently unrelated to *all* measures of alcohol use in the past month across both Samples 1 and 2. While shame-free guilt was found to be unrelated to the reported *frequency* of alcohol consumed during the past month in both Samples 1 and 2, significant small-magnitude negative correlations were found between shame-free guilt and

the number of times alcohol was consumed to the extent of intoxication (both Samples 1 and 2). Significant small-magnitude negative correlations were also found between shame-free guilt and heavy episodic drinking (i.e., > than 4[women] or > 5 [men] standard drinks) as well as the average number of standard drinks consumed per drinking occasion, but only in the higher-powered Sample 1.

Table 8

Relationships Between Shame and Guilt-Proneness and Alcohol Use in the Past Month and Hazardous Alcohol Use in the Past Year for Sample 1 and Sample 2

	Bivariate Correlations		Part Correlations	
Measure	Shame	Guilt	Shame	Guilt
Alcohol use in the past month				
Number of days alcohol consumed in past month				
Sample 1	-.10*	-.03	-.10	.01
Sample 2	-.07	.02	-.08	.05
Average number of drinks per drinking occasion in past month				
Sample 1	-.09	-.17**	-.02	-.15**
Sample 2	-.05	-.12	-.01	-.10
Number of times intoxicated in past month				
Sample 1	-.03	-.13**	.03	-.13**
Sample 2	-.08	-.17**	-.02	-.15*
Number of times ≥ 4 [females] or ≥5 [males] standard drinks consumed in a single session in the past month				
Sample 1	-.06	-.15**	.01	-.14**
Sample 2	-.11	-.12*	-.07	-.09
Hazardous alcohol use in the past year				
Maximum number of drinks in a two hour period in past year				
Sample 1	-.07	-.21**	.02	-.20**
Sample 2	-.03	-.16**	.03	-.16**
Maximum number of drinks in a single drinking session (start to finish) in past year				
Sample 1	-.11*	-.23**	-.01	-.21**
Sample 2	-.10	-.17**	-.05	-.14*

Note. * $p < .05$. ** $p < .01$. Sample 1 $N = 425$ - 427. Sample 2 $N = 276$ - 281.

As can also be seen in Table 8, guilt-free shame was unrelated to potentially hazardous alcohol consumption episodes in the past last year in both Samples 1 and 2. In contrast, and consistent across samples, shame-free guilt was significantly and negatively related to potentially hazardous drinking episodes, namely maximum number of drinks in a two hour period and maximum number of drinks in a single drinking session (start to finish) in the past year. These relationships were of a small magnitude.

Shame, Guilt, and Future Alcohol Consumption Behavioural Intentions

Relationships between shame and guilt-proneness with alcohol consumption behavioural intentions for Sample 2 are displayed in Table 9. Here it can be seen that guilt-free shame was unrelated to all behavioural intentions with the exception of a small-magnitude significant positive relationship with the predicted number of times alcohol was to be consumed until intoxication. While shame-free guilt was unrelated to the predicted number of days alcohol was to be consumed, it was significantly and negatively related to the predicated number of standard drinks consumed per drinking occasion, predicted instances of heavy episodic drinking, predicted instances of drinking until intoxication, and the predicated maximum number of drinks consumed in a single session. These relationships ranged between small to medium in terms of magnitude.

Table 9

Relationships Between Shame and Guilt-Proneness and Alcohol Consumption Behavioural Intentions For the Next Month (Sample 2)

	Bivariate Correlations		Part Correlations	
Measure	Shame	Guilt	Shame	Guilt
Predicted number of days alcohol consumed	-.07	-.08	-.04	-.06
Predicted number of standard drinks consumed per occasion	-.11	-.22**	-.04	-.19**
Predicted number of times intoxicated	.00	-.27**	.12*	-.29**
Predicted number of times 4/5 or > drinks in single session	-.02	-.21**	.06	-.21**
Predicted greatest number of standard drinks in a single session	-.16**	-.28**	-.06	-.24**

Note. * $p < .05$. ** $p < .01$. $N = 281$.

Discussion

The aim of the study reported in this chapter was to provide an in-depth exploration of the relationships between shame and guilt-proneness with alcohol use disorder symptomatology as assessed by the AUDIT, alcohol use patterns, and the experience of negative alcohol-related consequences. In line with hypotheses and congruent with past research (e.g., Dearing et al., 2005), results of the current study provide additional evidence for consistent and inverse relationships between guilt-proneness with heavy episodic alcohol use, alcohol use disorder symptomatology, and the experience of negative alcohol-related

consequences. In contrast, shame-proneness was positively related to alcohol use disorder symptomatology, negative alcohol-related consequences, and the perceived loss of control over alcohol use. In addition to replicating and extending on research by Dearing et al. (2005), these findings are also generally congruent with previous studies which found that substance dependent individuals were lower on guilt-proneness and higher on shame-proneness than non-addicted comparison groups (Meehan et al., 1996; O'Conner et al., 1994). The respective and divergent relationships of shame and guilt-proneness with problematic alcohol use will each be discussed in turn.

Shame-Proneness and Problematic Alcohol Use

While shame-proneness demonstrated a positive relationship with alcohol use *disorder* symptomatology as assessed by the AUDIT, as well as negative alcohol use-related consequences as assessed by the YAACQ and the alcohol problem severity index, no significant relationship between shame-proneness and any measure of alcohol use in the last month or year was found. With the exception of a small-magnitude positive relationship between shame-proneness and the predicted number of instances of intoxication in the next month, shame was also unrelated to future alcohol consumption behavioural intentions including the predicted frequency of alcohol intake and the predicted average number of standard drinks consumed per occasion. Taken together, these findings suggest that while shame-proneness does not appear to be associated with the frequency or quantity of alcohol use per se, it does nevertheless appear to be positively related to the experience of alcohol-related problems.

Interestingly and in both samples, shame-proneness was positively related to a reported loss of control over one's alcohol use. As assessed by the control subscale of the YAACQ, shame-proneness was associated with the endorsement of items related to drinking more than planned, difficulty limiting the amount drunk, and spending too much time drinking. While shame-proneness was associated with previously having made attempts to exert control over one's alcohol use in the past six months, shame-proneness was also positively associated with perceiving past alcohol use limiting attempts as being unsuccessful. Similarly, shame-proneness was associated with the *belief* that any future attempts made to regulate or control alcohol use would be met with failure. Consistent with research indicating that shame-proneness is associated with the diminished ability to exert self-control and produce adaptive self-regulatory behaviours (Tangney et al., 2004), findings from the present study suggest that the relationship between shame-proneness and alcohol disorder symptomatology may, to some extent, be attributable to difficulties experienced with regard to *controlling* alcohol intake.

Another consistent finding across both samples was that shame-proneness correlated positively with the negative self-perception subscale of the YAACQ. More specifically, shame-proneness was associated with the endorsement of items such as *"I have felt badly about myself because of drinking"* and *"I have been unhappy because of my drinking."* This finding is consistent with research indicating that shame-prone individuals have a propensity for engaging in aversive negative self-evaluations in response to transgressions and other negative events (Tangney et al., 2007). Moreover, the finding that shame-proneness is associated with negative self-perceptions as a result of alcohol use is

consistent with a component of the hypothesized shame-alcohol-use shame spiral elaborated upon by Potter-Effron (2002) and others (e.g., Tangney & Dearing, 2002; Wiechelt, 2007). That is, individuals who are prone to experiencing shame and thus, negative self-perceptions in general, also appear to demonstrate the propensity to experience negative self-perceptions and negative affect as a result of drinking.

In addition to a perceived loss of control over alcohol use and the experience of negative self-perceptions due to drinking, shame-proneness was associated with the reported experience of alcohol-related academic and occupational problems across both samples. Specifically, shame-prone individuals were more likely to endorse items indicating that they have missed class or work due to a hangover and that their performance at school and or work has suffered as a result of drinking over the past year.

Albeit inconsistently, shame-proneness was also positively associated with risk taking behaviour while drinking (e.g., driving while intoxicated) and "blackout" drinking (e.g., drinking until passing out or throwing up from drinking). While these relationships were small in magnitude and should be interpreted tentatively given they were not replicated across both samples, they are nonetheless consistent with research indicating that shame is associated with a host of problematic sequela (e.g., Dearing et al., 2005; Tangney, 1995; Tangney et al., 1992, 1996).

Guilt-Proneness and Problematic Alcohol Use

While shame-proneness demonstrated positive relationships with measures of problematic alcohol use, a divergent pattern of results emerged for

guilt-proneness. More specifically, guilt-proneness was found to be negatively related to alcohol use disorder symptomatology as assessed the AUDIT, negative alcohol use-related consequences, and potentially hazardous drinking patterns. Largely consistent across both samples, these findings replicate and extend on previous work by Dearing et al. (2005) which suggests that guilt-proneness may help buffer an individual against the experience of alcohol-related disorders and associated negative consequences.

While guilt-proneness was negatively related to the number of instances of drinking until intoxication in the last month across both samples, guilt-proneness was consistently *unrelated* to the number of days individuals actually consumed alcohol in the last month. This finding suggests that guilt-proneness may serve an adaptive regulatory function with regard to alcohol use *manner* in that it may help to prevent individuals from consuming alcohol in excessive quantities (e.g., until intoxication). However, guilt-proneness does not appear to impede individuals from enjoying the positives associated with moderated low level drinking, such as pleasant physical effects and enhancements in social facilitation.

While guilt-proneness was negatively related to the average number of standard drinks consumed per drinking occasion and instances of consuming greater than 4 (women) and 5 (men) standard drinks per occasion in Sample 1, these small-magnitude relationships did not quite reach significance in the lesser-powered Sample 2. However, and with regard to drinking in the past year, significant negative relationships between guilt-proneness and the maximum number of standard drinks consumed in a two hour period and during a single drinking session (i.e., from start to finish) were found across both samples. These

findings provide additional support for the proposition that guilt's primary alcohol use regulation function may be to rein in potentially more hazardous and heavy alcohol consumption episodes.

The generally consistent inverse relationships between guilt-proneness and heavy episodic drinking were found to extend to self-reported alcohol consumption behavioural intentions for the following month. While there was no relationship between guilt-proneness and the predicted number of days alcohol was to be consumed, a finding consistent with the notion that guilt-proneness is unrelated to the frequency of alcohol use, guilt was negatively related to the predicted average number of standard drinks consumed on occasion, the predicted greatest number of standard drinks to be consumed in a single session, and also the predicted number of instances of heavy episodic drinking. Taken together, guilt-proneness was unrelated to the intended *frequency* of alcohol consumption in the following month, but was associated with the intention to drink at *lower levels* when consuming alcohol.

The general finding that guilt-proneness is inversely related to heavy episodic drinking appears to yield benefits in helping guilt-prone individuals avoid a host of negative alcohol-related consequences. Indeed, guilt-proneness was consistently inversely related to the alcohol problem severity index across both samples, as well as several lower-order alcohol problem domains. For example guilt-proneness was associated with fewer instances of loss of control of drinking, risky behaviours while drinking, instances of blackout drinking (e.g., passing out, throwing up, or waking up in unexpected places), and indicators of alcohol dependence in both Samples 1 and 2. In Sample 1, guilt-proneness was

also *negatively* related to self-care neglect as a result of drinking and the experience academic or occupational problems due to alcohol use.

An additional finding from the present study is that guilt-proneness is associated with having better *control* over alcohol use. More specifically, guilt-proneness was positively associated with perceived success at controlling and limiting intake and also the belief that one could successfully control or limit alcohol use in the future and should an individual decide to do so. Interestingly, and despite finding consistently inverse relationships between guilt-proneness and hazardous episodic drinking, guilt-proneness was unrelated to *explicitly* having made past attempts at exerting control over one's actual use in the past six months. A possible explanation for this finding is that because guilt-prone individuals appear to have less problematic alcohol use generally, the need to explicitly and actively limit alcohol intake is less likely to result in any significant functional gain and thus, appears to be unnecessary. The finding that guilt-proneness is associated with the better control over alcohol use is also consistent with research indicated that guilt-proneness is positively associated with trait level self-control or self-regulatory ability (Tangney et al., 2004).

In explaining the inverse relationship between guilt-proneness and potentially risky behaviors, one of several arguments Stuewig and Tangney (2007) make is that guilt-prone individuals may be more able to see that certain actions (e.g., heavy episodic drinking) and behaviors (e.g., getting into a fight while intoxicated) are likely to be harmful to themselves and or to others. With their advanced foresight, Stuewig and Tangney posit that guilt-prone individuals may be less inclined to engage in potentially hazardous behaviours. Indeed, the

inverse relationship between guilt-proneness and problematic alcohol use found in the present study provides support for this notion.

Given that guilt is associated with learning from past problematic behavior and making amends when one's behaviour is perceived as awry (Amodio et al., 2007; Tangney & Dearing, 2002), it seems plausible that guilt-proneness may also be associated with the better regulation of alcohol use *subsequent* to the experience of negative alcohol use-related consequences. That is, guilt-prone individuals may be more adept learning from negative alcohol use-related consequences and mistakes than their less guilt-prone peers. Indeed, an interesting line of future research may be to determine whether or not guilt-proneness is associated with a steady decline of alcohol-related consequences following the initiation of alcohol use.

Summary

The findings of the present study support and extend on previous research which indicates that shame-proneness is associated with problematic substance use while guilt-proneness appears to be inversely related to such problems (Dearing et al., 2005; Meehan et al., 1996; O'Conner et al., 1994). Guilt-proneness demonstrated a generally consistent and clear pattern of negative relationships with alcohol-related problems, associated negative consequences, and heavy episodic drinking, but appeared to be unrelated to frequency of alcohol consumption. Guilt-proneness was also associated with perceptions of having greater control over alcohol consumption. In contrast to guilt, shame-proneness appears to offer no adaptive role with regard to the regulation of alcohol intake. While shame-proneness was not related to any measure of alcohol consumption

in the last month or hazardous alcohol consumption in the last year, it did correlate positively with the experience of negative alcohol-related consequences as measured by the YAACQ and disordered alcohol use symptomatology as measured by the AUDIT. Shame-proneness was also positively and consistently related to the perceived loss of control of alcohol intake and the experience of negative self-perceptions due to drinking. An important next step for future research is to examine some of the possible reasons why guilt-proneness is positively associated with the successful regulation of alcohol use. Likewise, further research is needed to identify some of the possible reasons for why shame-proneness appears to have no adaptive role with regard to alcohol use regulation.

CHAPTER 7

Study 2: Shame, Guilt, and Alcohol Use Regulation: Relationships with Reasons for Drinking, Alcohol Expectancies, Protective Behavioural Alcohol Use Strategies, Drinking Milestones, and Drinking-Related Perceptions

Shame and guilt are closely related emotions of negative affect that give rise to considerably disparate motivational and self-regulatory behaviors (Tangney & Dearing, 2002). In Study 1 (Chapter 6) of the present Thesis and in research by Dearing et al. (2005), guilt-proneness has emerged as a construct that demonstrates replicable negative relationships with alcohol use-related disorders and moreover, appears to be inversely related to heavy episodic drinking and associated negative alcohol-related consequences. In contrast, the results of Study 1 (Chapter 6) and the findings of Dearing et al. (2005) indicate that shame-proneness plays no adaptive role with regard to the regulation of alcohol use and indeed, appears to be positively related to alcohol use disorders, negative alcohol use-related consequences, and an impaired control over drinking.

It is notable that the literature relating to shame, guilt, and alcohol use has thus far focused largely on the respective relationships between the two emotions and the experience of alcohol *problems*. However, there appears to have been no substantial empirical attempt at exploring possible explanatory variables which might help aid in the understanding of the inversive relationship between guilt-proneness and alcohol problems and the apparent positive relationship between shame-proneness and problematic alcohol use. Despite this general dearth in the literature, several mechanisms and explanatory variables have nonetheless been hypothesised by theorists that aim to explain these relationships (see Dearing et

al., 2005; Potter-Efron, 2002; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007). The aim of the study reported in this chapter is to test some of these hypotheses.

Hypothesised Relationships between Self-Conscious Affect Style, Motives for Drinking, and Alcohol Outcome Expectancies

Several theorists (e.g., Dearing et al., 2005; Fossum & Mason, 1986; Potter-Efron, 2002; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007) have now elaborated upon the hypothesis that shame-prone individuals drink as a means of down-regulating or coping with frequent and highly aversive experiences of shame and other negative emotions. This hypothesis is consistent with research indicating that drinking to down-regulate negative affect (e.g., anxiety and depression) is a commonly reported motivation or reason for consuming alcohol (Cooper et al., 1995; Grant et al., 2007). Generally considered to be problematic and maladaptive, drinking to down-regulate negative affect provides negative-reinforcement for continued alcohol use (Leigh & Stacy, 1993) and appears to place individuals at greater risk of alcohol dependence (Holahan et al., 2003; Capenter & Hasin, 1999). Moreover, drinking to cope with negative affect is positively associated with drinking in greater quantities and an increased likelihood of experiencing negative alcohol use-related consequences (Grant et al., 2007).

In elaborating upon the hypothesised link between shame-proneness and drinking to cope, Tangney and Dearing (2002) draw upon Linehan's (1993a, 1993b) notion of growing up in an "invalidating" family environment as being a potential precursor for the tendency to use substances as a means of coping with

negative emotions. Linehan argues that when an individual grows up in an invalidating family environment in which their emotional experiences and reactions are belittled, ignored, discounted, or mocked, they may fail to learn how to effectively regulate their experiences of negative affect (e.g., anger, shame, anxiety) using effective and adaptive coping strategies. With significant deficiencies in their adaptive coping strategy repertoire, such individuals may use alcohol and or other substances as a short-lived means of avoiding or down-regulating highly aversive negative emotions. While acknowledging the short-term appeal of using substances to down-regulate negative emotions, Tangney and Dearing (2002) suggest that a destructive cycle of negative affect and dependence may result if this maladaptive substance use as a coping strategy is frequently relied upon.

Despite its status as a longstanding hypothesis in the literature, empirical findings indicating that shame-prone individuals *are* actually prone to drink in order to cope with negative affect appear to be scant. There is a growing body of literature indicating that shame-proneness is associated with substance misuse problems generally (Dearing et al., 2005; Meehan et al., 1996, O'Conner et al., 1994; Study 1, Chapter 6) and an ongoing longitudinal study reported by Tangney and Dearing (2002) found that shame-proneness, as assessed in the fifth grade, predicted substance use in young adulthood (ages 18-19). However, it appears no research has directly explored links between shame-proneness and self-reported reasons or motivations for consuming alcohol.

Similarly, it appears no research has examined links between shame-proneness and alcohol outcome *expectancies*, the personal beliefs that individuals hold with regard to the effects or consequences of alcohol consumption (see

Leigh & Stacy, 1993). If shame-proneness is in fact associated with drinking as a means to down-regulate negative emotions, it should positively correlate with self-reports of drinking to cope with negative affect states and the belief or expectation that alcohol will reduce the experience of negative affect (i.e., the belief that alcohol has tension reduction, negative-reinforcement properties). Likewise, if negative alcohol use-related consequences are a source of additional negative affect, as proposed by the shame-alcohol use-shame hypothesis (Tangney & Dearing, 2002; Wiechelt, 2007), shame-proneness should be positively associated with the belief that alcohol use contributes to the experience of negative emotional deregulation.

While a relationship between shame-proneness and drinking as a means of down-regulating negative affect has been elaborated upon by several theorists (e.g., Dearing et al., 2005; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007), there does not appear to be any evidence to suggest that this is also true for guilt-proneness. Firstly, research indicates that guilt-proneness tends to be unrelated or inversely related to proneness to negative affect and psychopathology in general (Tangney et al., 1992, 1995). Moreover, guilt is associated with a host of adaptive functioning variables and self-regulatory behaviors (Tangney & Dearing, 2002), including the successful regulation of alcohol use (Dearing et al., 2005; Study 1, Chapter 6). Taken together, it appears reasonable to suggest that guilt-proneness is unrelated to the motivation to drink as a means of coping with negative affect.

Nevertheless, with the Study 1 (Chapter 6) indicating that guilt-proneness is unrelated to the *frequency* of alcohol consumption but is inversely related to heavy episodic drinking and the experience alcohol-related consequences, the

motivations that guilt-prone individuals report for consuming alcohol certainly warrants exploratory investigation. Although speculative, it may be that guilt-prone individuals are inclined to consume alcohol for the positive aspects of low-risk and moderated alcohol consumption, including social facilitation and pleasant physical effects, but are somewhat less inclined to drink to levels of intoxication that may result in an increased likelihood of deleterious outcomes. Indeed, an exploration of the expectations that guilt-prone individuals have with regard to the effects of alcohol may shed additional light on the possible reasons why which guilt-prone individuals are typically successful in avoiding negative alcohol use-related consequences.

Possible Links between Self-Conscious Affect Style and the Use of Adaptive Self-Regulatory Drinking Behaviours

Stuewig and Tangney (2007) suggest that guilt-prone individuals may be more skilled at curbing potentially hazardous behaviours (e.g., heavy episodic drinking or risky drinking behaviours) which they perceive may result in deleterious outcomes to themselves and or others. Consistent with findings that guilt-proneness is associated with the avoidance of alcohol-related harms (Study 1, Chapter 6), it seems plausible that guilt-prone individuals may be more inclined to employ various alcohol-related protective behavioural strategies which serve to reduce the likelihood of high-risk drinking and the associated experience of alcohol-related consequences. Such strategies include making explicit attempts to limit the number of drinks consumed (e.g., determine not to exceed a predetermined number of drinks), drinking in a manner that is less likely to result in intoxication (e.g., avoiding drinking games and avoiding trying to

"keep up" with others), and engaging in behaviours associated with serious harm avoidance such as remaining vigilant as to where one's drink has been at all times (Martens, Pedersen, LaBrie, Ferrier, & Cimini, 2007).

There does not appear to be any evidence to suggest that the hypothesised link between guilt-proneness and the use adaptive protective cognitive-behavioural strategies may also be true for shame-proneness. Firstly, the findings of Study 1 (Chapter 6) and research by Dearing et al. (2005) indicate that shame-proneness is positively related to the experience of negative alcohol-related consequences. Coupled with a large body of research indicating that shame fails to inhibit behaviours that may be detrimental to the self or others (Tangney & Dearing, 2002), it appears reasonable to suggest that shame-proneness is unrelated to the use of various alcohol-related protective behavioural strategies while drinking. At present, however, it appears that possible relationships between self-conscious affect style and the use of alcohol-related protective behavioural strategies have never been empirically explored and as such, further research in this direction appears warranted.

Hypothesised Relationships between Shame, Guilt, and Drinking-Related Perceptions

In addition to possible links between moral-affective style and the use of protective behavioural strategies while drinking, another seemingly plausible way in which shame and guilt-prone individuals may differ is with regard to their drinking-related perceptions. Mallet, Lee, Neighbors, Larimer and Turrisi (2005) argue that individuals oftentimes rely on various sources of intrapersonal (e.g., social norms) and interpersonal information (e.g., past experiences) when

perceiving how much they can and should drink on any one occasion and in various contexts. Given the divergent relationships between shame, guilt, and the regulation of alcohol (Dearing et al., 2005; Study 1, Chapter 6), it seems possible that shame and guilt-prone individuals may differ in their perceptions of the level of alcohol that must be consumed before the likely experience of positive and negative alcohol-related consequences.

As shame-proneness is positively associated with the experience of negative alcohol use-related consequences (Dearing et al., 2005; Study 1, Chapter 6), it may be that shame-prone individuals erroneously perceive that positive and negative alcohol-related consequences occur only after the consumption of greater quantities of alcohol. In turn and by failing to perceive a need to rein in their drinking when necessary (i.e., *before* the experience of negative consequences), these erroneous perceptions may lead shame-prone individuals to be more likely to experience negative alcohol-related consequences.

In contrast, and with a demonstrated ability to avoid negative alcohol use-related consequences when drinking (Dearing et al., 2005; Study 1, Chapter 6), guilt-prone individuals may perceive that the consumption of *fewer* drinks is likely to result in both positive and negative outcomes than their less guilt-prone peers. That is, guilt-prone individuals may be inclined to perceive or anticipate that consuming alcohol in more conservative quantities is still nonetheless likely to result in certain positive and negative consequences. These more conservative perceptions, however accurate, may result in the guilt-prone individual to be more cautious with regard to their drinking, tending to avoid heavy episodic drinking and also tending to avoid experiencing negative alcohol-related consequences.

It is also noteworthy that experiences of guilt are associated with lessons learnt and the subsequent shifts in future behaviour (Amodio et al., 2007; Baumeister et al., 1994; Tangney et al., 2007). Thus if a guilt-prone individual *does* experience negative outcomes following a heavy drinking episode (e.g., risky or problematic interpersonal behaviours), they may be more inclined to take note of how much they drank on that particular occasion, shift their drinking perceptions, and aim to regulate their drinking to avoid such consequences in the future.

Shame, Guilt, and the Reaching of Alcohol Use-Related Milestones

Another hypothesised way in which shame and guilt-proneness may help determine whether or not an individual experiences alcohol-related problems concerns the possible influence that these two emotions may have in determining the age at which individuals first begin consuming alcohol. With regard to guilt-proneness, there is some preliminary evidence to suggest that the adaptive emotion may help serve to delay the initial onset of alcohol use (Tangney & Dearing, 2002). An ongoing Longitudinal Family Study, aiming to track early moral emotional style (i.e., shame and guilt-proneness) and subsequent behavioural adjustment, found that guilt-prone fifth-graders begun drinking later on in life as compared to their less guilt-prone peers when they were later interviewed as young adults (as cited in Tangney et al., 2007; Tangney & Dearing, 2002).

Although clearly in need of replication, the preliminary finding that guilt-proneness may significantly help delay the initial onset of alcohol use may be one of importance given that the age of alcohol use onset is a robust predictor of

subsequent alcohol use-related disorders and the experience of negative alcohol-related consequences (Grant & Dawson, 1997; Hingson, Heeren, & Winter, 2006; Hingson, Hereen, Jamanka, & Howland, 2000). Thus, if guilt-proneness does effectively promote the delay of the initial use of alcohol, it may help an individual reduce the likelihood of later experiencing alcohol-related problems. Indeed, delaying the initial onset of alcohol use for even relatively short periods of time (e.g., a year or two) appears to lower the long-term risk of developing alcohol use disorders (see Grant & Dawson, 1997).

Tangney and Dearing (2002) note that while guilt inhibits a range of behaviours that are potentially destructive to the self or others, shame appears to offer no such inhibitory function. Indeed, Tangney and Dearing (2002) found that among the sample of fifth grade students in the aforementioned Longitudinal Family Study, level of shame-proneness served as a positive predictor for the subsequent engagement in risk taking behaviours and the earlier initiation of alcohol use. However, the authors do not elaborate upon the magnitude of these relationships.

Aims and Hypotheses

Having previously replicated and extended on Dearing et al.'s (2005) findings that guilt-proneness is inversely related to disordered alcohol use while shame-proneness appears to share a positive relationship with alcohol-related problems, Study 2 aims to test several of the proposed hypotheses that attempt to explain these divergent relationships. In doing so, it will explore the unique correlates of shame and guilt-proneness with self-reported reasons for drinking,

alcohol outcome expectancies, drinking-related protective behavioural strategies, drinking-related perceptions, and the reaching of alcohol use milestones.

Drawing on a hypothesis prominent in the shame and alcohol use literature (e.g. Potter-Effron, 2002; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007), it was expected that shame-proneness would be associated with self-reports of drinking in order to down-regulate negative affect (e.g., depression, anxiety). Similarly, it was hypothesised that shame-proneness would be associated with the expectations that alcohol consumption brings tension reduction but also oftentimes results in negative affect experiences. Guilt-proneness, on the other hand, was expected to be unrelated to the use of alcohol in order to cope with negative affect, but was hypothesised to be positively related to the motivation to drink for social facilitation benefits.

Given that guilt-proneness has been found to be associated with the successful avoidance of a host of negative alcohol-related consequences (Dearing et al., 2005; Study 1, Chapter 6) and also appears to inhibit risk taking behaviours (Stuewig & Tangney, 2007), it was expected that guilt-proneness would be positively related to the use of alcohol-related protective behavioural strategies while drinking. On the other hand, as shame fails to inhibit potentially risky behaviours (Tangney & Dearing, 2002), it was expected shame-proneness would be unrelated to the use of such protective strategies while drinking.

It was further expected that guilt-proneness would demonstrate an inverse relationship with the perceived quantity of alcohol that would need to be consumed in order to experience positive and negative alcohol-related consequences. In contrast, it was expected shame-proneness would be positively

associated with the perceived quantity of alcohol that would need to be consumed in order to experience positive and negative alcohol-related consequences.

Finally, based on preliminary evidence from a longitudinal study reported by Tangney and Dearing (2002), it was expected that guilt-proneness would be associated with a later age of alcohol use initiation and a later age at which individual's first consume alcohol to the extent of intoxication. In the opposite direction, it was expected that shame-proneness would be associated with the reported initiation of alcohol use and drinking to the extent of intoxication earlier on in life.

Method

Participants

In Sample 1, participants were 429 individuals drawn from the local community and from a variety of degree programs at the University of Tasmania, Australia. Sample 1 was homogenous with that described in Study 1 (Chapter 6). However, one individual that was previously excluded from Study 1 (Chapter 6) due to missing data provided sufficient data to warrant inclusion in the present study (Study 2). The ages of participants ranged from 17 to 69 (M = 23.98, SD = 9.03). The mean age for the 107 male participants was 25.67 (SD = 10.14) while the mean age of the 314 female participants was 23.45 (SD = 8.61). Four participants failed to state their age while another four failed to state their gender. With regard to ethnicity, 91% were White, 4% were Asian, 1% was Black, and 4% were of other or mixed ethnicity. A total of ten individuals were excluded from Sample 1 due to missing data.

Participants in Sample 2 were 281 individuals also drawn from the local community and variety of degree programs at the University of Tasmania, Australia. Sample 2 was homogenous with that described in Study 1 (Chapter 6). The ages of participants ranged from 17 to 62 with a mean age of 22.22 (*SD* = 7.83). The mean age for the 74 male participants was 21.94 (*SD* = 6.97), while the mean age of the 207 female participants was 22.32 (*SD* = 8.12). With regard to ethnicity, the sample was predominately White (90%), 4% were Asian, 1% were Black, 1% was Hispanic, and 4% were of other or mixed ethnicity. Eighteen individuals were excluded from Sample 2 due to missing data. There was no overlap in participants included in Samples 1 and 2.

Materials

Test of Self-Conscious Affect-3: Short Version (Sample 1 and Sample 2)

The *Test of Self-Conscious Affect-3* (TOSCA-3: Tangney et al., 2000) was used in order to assess shame and guilt-proneness. A detailed discussion of the scenario-based TOSCA-3 including an example scenario, format, response options, and psychometric properties can be found in Chapter 6.

Reaching of Alcohol Use-Related Milestones (Sample 1 and Sample 2)

Four items were used to assess the reaching of alcohol use-related milestones (see Appendix J). To assess age of alcohol use initiation, the item *"Estimated age at which you consumed your first alcoholic beverage (more than a few sips)?"* was used. Participants were required to indicate their age in years and the school grade they were in at the time. To asses the age at which an individual first consumed alcohol to the extent of intoxication, the item

—Estimated age at which you first consumed alcohol at a level that resulted in you getting drunk (smashed, pissed, wasted etc)?" was used. Again, participants were required to indicate their age in years and the school grade they were in at the time. For the later two items, an additional *—Never drunk to intoxication"* response option was available. For the items relating to the school grade during which individuals consumed their first alcohol beverage and drunk to the extent of intoxication, responses ranging between grades 1 to 12 were considered valid.

Alcohol Outcome Expectancies Scale (Sample 2)

Positive and negative expectations or beliefs about the effects of alcohol were assessed using Leigh and Stacy's (1993) 34-item *Alcohol Outcome Expectancies Scale* (AOES: see Appendix K). This scale asks participants to rate how likely is it that a number of positive or negative outcomes happens to them when they drink alcohol, with responses made using a 6-point Likert scale with end point designations of 0 (*No Chance*) to 5 (*Certain to Happen*). The AOES contains two global Positive and Negative Expectancies subscales. The Positive Expectancies scale contains an additional four subordinate subscales comprising: Social, Fun, Sex, and Tension Reduction/Negative Reinforcement expectancies. An example item from the Fun subscale is *—I enjoy the buzz"* while an example item from the Tension Reduction/Negative Reinforcement subscale is *—I am able to take my mind off my problems"*. The Negative Expectancies scale also contains an additional four subordinate subscales comprising: Social, Emotional, Physical, and Cognitive/Performance expectancies. An example item from the Emotional subscale is *—I feel sad or depressed"* while an example item from the Physical scale is *—I feel sick"*.

Leigh and Stacy (1993) report internal consistencies of .88 and .94 for the Negative and Positive Expectancies scales, respectively. Cronbach's alphas for the eight lower-order subscales are reported as ranging between .73 for the Tension reduction/Negative Reinforcement and .91 Sex subscales (Leigh & Stacy, 1993). In the present study, Cronbach's alphas for the Negative Expectancies and Positive Expectancies subscales were .84 and .93 respectively. Cronbach's alphas for the eight lower-order subscales ranged between .76 for the Negative Physical subscale, and .93 for the Positive Sex subscale.

Protective Behavioral Strategies Scale (Sample 2)

The *Protective Behavioural Strategies Scale* (PBSS: Martens et al., 2007*)* was employed to assess the cognitive-behavioural strategies that participants employ in order to reduce high risk alcohol consumption and associated negative consequences (see Appendix L). The PBSS comprises 15 items and in addition to a total score, yields three subscales: Stopping/Limiting Drinking (7 items), Manner of Drinking (5 items), and Serious Harm Reduction (3 items). Participants are asked to indicate the frequency and degree to which they engage in each behavior when using when consuming alcohol or "partying" and respond using a 6-point Likert scale with response options ranging between 0 (*Never*) to 5 (*Always*). An example item from the Stopping/Limiting Drinking subscale is *"Determine not to exceed a set number of drinks".* Example items from the Manner of Drinking and Serious Harm Reduction subscales are *"Drink slowly, rather than gulp or skull"* and *"Use a designated driver",* respectively. Martens et al. (2007) report adequate to good internal consistencies of .59, .82, and .74 for the Serious Harm Reduction, Stopping/Limiting Drinking, and Manner of

Drinking subscales, respectively. In Sample 2, Cronbach's alphas for the PBSS were .61 for Serious Harm Reduction, .83 for Stopping/Limiting Drinking, and .79 for Manner of Drinking.

Modified Drinking Motives Questionnaire — Revised (Sample 1 and Sample 2)

The *Modified Drinking Motives Questionnaire – Revised* (MDMQ-R: Grant et al., 2007) was used to assess individual differences in self-reported motives for consuming alcohol (see Appendix M). The 28 item MDMQ-R measures five drinking motive domains, yielding five subscales: Social (5 items), Conformity (5 items), Enhancement (5 items), Coping-Depression (9 items), and Coping-Anxiety (4 items). Participants are asked to take into consideration all the times the consume alcohol and indicate how often they drink for the reason stated in each item using a 5-poing Likert scale ranging from 1 (*Almost Never or Never*) to 5 (*Almost Always or Always*). Example items from the Social, Conformity, and Enhancement subscales are *"As a way to celebrate"*, *"So I won't feel left out"*, and *"Because I like the feeling",* respectively. An example item from the Coping-Depression scale is *"Because it helps me when I am feeling depressed"*, while an example item from the Coping-Anxiety scale is *"Because it helps me when I'm feeling nervous".* In addition to demonstrating good temporal stability, Grant et al. (2007) report adequate to good Cronbach's alphas for the Modified DMQ-R subscales as ranging between .66 for the Social and .91 for the Coping-Depression subscales. Using data from Sample 1, Cronbach's alphas ranged between .73 for the Coping-Anxiety subscale and .92 for the Coping-Depression

subscale. Similar Cronbach's alphas were found in Sample 2, ranging between .72 for the Coping-Anxiety subscale and .92 for the Coping-Depression subscale.

Drinking-Related Perceptions Scale (Sample 2)

The perceived quantities of alcohol that would need to be consumed in order to experience positive and negative alcohol use consequences were examined using the Drinking-Related Perceptions Scale (DRPS: See Appendix N). Adapted from the *Perceptions of Intoxication* measure used by Mallet et al. (2005) for the purposes of this study, the DRPS provides a social context for drinking by giving the scenario *"Suppose it is a Saturday evening and you are at a friend's party where people are drinking quite heavily. You are relaxed and having a great time drinking you favorite alcoholic beverage. You decide to stay at the party for a period of 4 hours."* Participants are then required to indicate how many standard drinks they would need to consume in order to experience 5 positive consequences (e.g., *"How many standard drinks would you have to consume before you felt pleasant physical effects?")* and 7 commonly occurring negative consequences, with an example being *"How many standard drinks would you have to consume before you felt very sick to the stomach or threw up (i.e., vomited)?"*

Participants provide an estimate of the number of standard drinks they would need to consume before experiencing each consequence from 25 response options, ranging between "*1*" to "*more than 25*" standard drinks. Responses to items are summed to yield separate indexes for the perceived level of alcohol it would be necessary to consume before the likely experience of negative and positive consequences. The commonly occurring positive consequences were

adapted from items contained in Mallet et al.'s (2005) Perceptions of Intoxication measure and Leigh and Stacy's (1993) Alcohol Outcome Expectancies Scale. The negative consequences were adapted from items contained in Read et al.'s (2004) Young Adult Alcohol Consequences Questionnaire. Internal consistencies for the drinking-related perceptions measure used in this study were excellent for both the positive consequences index (Cronbach's alpha = .89) and the negative consequences index (Cronbach's alpha = .94).

Procedure

Approval to conduct Study 2 was obtained from The Tasmanian Social Sciences Human Research Ethics Committee (SS HREC) in 2007. As per the data collection procedure described in-depth in Chapter 6, data for the present study was collected using questionnaire batteries presented in small booklets that were circulated in the years of 2008 and 2009 at the University of Tasmania, Australia, and local surrounds. Participants were supplied with an information sheet (see Appendix I) and after their informed consent was gained, they were provided with their anonymous questionnaire booklet.

The booklet used to acquire data from Sample 1 contained the TOSCA-3 (Tangney et al., 2000), measures assessing the reaching of alcohol consumption-related milestones, the Modified Reasons for Drinking Questionnaire – Revised (Grant et al., 2007), and a demographics questionnaire (see Appendix J). The booklet used to acquire data from Sample 2 contained the aforementioned measures along with the Alcohol Outcome Expectancy Scale (Leigh & Stacy, 1993), the Protective Behavioral Strategies Scale (Martens et al., 2007), and the Drinking-Related Perception Scale. Participants were instructed to complete the

booklet at a time that was convenient and to return it to the investigator in a provided sealed envelope. Upon returning their questionnaire, participants were debriefed as to the aims of the study.

Results

Analysis

The shame and guilt-proneness subscales of the TOSCA-3 correlated positively and moderately in the two independent samples, $r = .42$ ($p < .001$, $n = 429$) in Sample 1 and $r = .38$ ($p < .001$, $n = 281$) in Sample 2. In line with Tangney and Dearing's (2002) recommendations and as per the rationale previously outlined in Chapter 6, the study reported here will employ part-correlation analysis and will use "shame-free guilt" and guilt-free shame" residuals to allow for a more refined analysis. The part-correlation analysis strategy employed will remain the focus of results interpretation.

Means and Standard Deviations

Descriptive statistics for the TOSCA-3 and MDMQ-R for Sample 1 and Sample 2 are presented in Table 10. Table 11 shows descriptive statistics for the reaching of alcohol use milestones for Sample 1 and Sample 2. Descriptive statistics for the PBSS, AOES, and DRPS for Sample 2 are shown in Table 12.

Table 10

Descriptive Statistics for the Test of Self Conscious Affect-3 and Modified Drinking Motives Questionnaire-Revised for Sample 1 and Sample 2

			Sample 1				Sample 2			
Measure	# of items	Possible Range	*n*	Mean	*SD*	Observed Range	*n*	Mean	*SD*	Observed Range
TOSCA-3										
Shame-proneness	11	11-55	429	33.54	7.74	12-51	281	33.99	6.37	13-54
Guilt-proneness	11	11-55	429	46.10	4.93	28-55	281	45.59	4.96	22-55
MDMQ-R										
Social	5	5-25	427	15.14	4.22	5-25	281	15.83	3.97	7-25
Coping-Anxiety	4	4-20	427	7.59	3.12	5-25	281	8.24	3.29	4-20
Coping-Depression	9	9-45	426	12.62	5.54	9-44	280	13.21	6.16	9-45
Enhancement	5	5-25	424	13.04	5.13	5-25	281	13.51	4.92	5-25
Conformity	5	5-25	427	7.34	3.13	5-23	281	7.97	3.43	5-21

Note. Sample 1 $N = 424$-429. Sample 2 $N = 280$ - 281. Increasing scores on the TOSCA-3 subscales indicate greater levels of shame or guilt-proneness. Increasing scores on the MDMQ-R indicate greater endorsement and more frequent motivation to consume alcohol for each respective motivation domain.

Table 11

Descriptive Statistics for the Reaching of Alcohol Use Milestones for Sample 1 and Sample 2

	Sample 1				Sample 2			
Measure	*n*	Mean	*SD*	Observed Range	*n*	Mean	*SD*	Observed Range
Age alcohol first consumed (more than a few sips)	424	15.24	2.08	5-24	279	14.97	1.82	10-21
School grade at the time of first alcohol use	379	9.24	1.78	1-12	258	9.14	1.61	5-12
Age alcohol first consumed to intoxication	394	16.17	2.30	9-40	250	15.73	1.84	11-25
School grade at the time of first intoxication	329	9.90	1.55	4-12	222	9.68	1.47	6-12

Note. Sample 1 N = 329-424. Sample 2 N = 222 - 279.

Table 12

Descriptive Statistics for Alcohol Outcome Expectancies Scale (AOES), Protective Behavioral Strategies Scale (PBSS), and Drinking Related-Perception Scale (DRPS) for Sample 2

Measure	# of items	Possible Range	*n*	Mean	*SD*	Observed Range
AOES						
Social (positive)	6	0-30	279	19.37	4.83	1-30
Fun (positive)	6	0-30	280	19.60	4.56	0-30
Sex (positive)	4	0-20	280	10.22	4.71	0-20
Tension Reduction / Negative Reinforcement (positive)	3	0-15	280	8.09	2.87	0-15
Total Positive Effects (positive)	19	0-95	279	57.28	13.50	4-93
Social (negative)	3	0-15	280	3.45	2.67	0-11
Emotional (negative)	3	0-15	280	3.67	2.56	0-15
Physical (negative)	4	0-20	279	8.72	3.78	0-20
Cognitive/Performance (negative)	5	0-25	280	13.15	4.72	0-25
Total Negative Effects (negative)	15	0-75	279	29.01	10.47	0-63
PBSS						
Stopping/limiting	7	0-35	281	15.01	7.08	0-35
Manner of drinking	5	0-25	281	13.02	5.53	0-25
Serious harm reduction	3	0-15	281	12.03	2.78	1-15

Table 12 *(continued)*

Measure	# of items	Possible Range	*n*	Mean	*SD*	Observed Range
Total Protective Behavioral Strategies	15	0-75	281	40.06	12.44	7-75
DRPS						
Perceived level of alcohol consumption before positive consequences index	5	5-125	278	20.59	9.95	5-81
Perceived level of alcohol consumption before negative consequences index	7	7-175	270	77.26	28.09	29-172

Note. N = 270 - 281. Positive = Positive alcohol outcome expectancies. Negative = Negative alcohol outcome expectancies. Increasing scores on the AOES indicate greater endorsement of the relevant alcohol outcome expectancy. Increasing scores on the PBSS subscale indicates greater use of the respective alcohol-related protective behavioural strategy. Increasing scores on the DRPS indexes indicate that positive and negative alcohol use consequences are perceived as likely to occur with having consumed more standard drinks.

Shame, Guilt, and the Use of Protective Behavioral Strategies While Drinking

Relationships between shame and guilt-proneness and the PBSS for Sample 2 are presented in Table 13. Here it can be seen that there was a small-magnitude, negative relationship between guilt-free shame and the tendency to drinking in a manner less likely to result in intoxication. All other relationships between guilt-free shame and PBSS scales were non significant. In contrast, shame-free guilt was positively and significantly related to the total protective behavioural strategies used, the employment of stopping/limiting strategies to reduce the chances of intoxication, engaging in serious harm reduction behaviours, and drinking in a moderated manner which lessens the likelihood of alcohol intoxication. These relationships were small to medium in terms of magnitude.

Table 13

Relationships Between Shame and Guilt-Proneness and the Protective Behavioural Strategies Scale (Sample 2)

	Bivariate Correlations		Part Correlations	
Measure	Shame	Guilt	Shame	Guilt
Stopping/limiting	.01	.15*	-.05	.16**
Manner of drinking	-.05	.19**	-.14*	.23**
Serious harm reduction	.08	.21**	.00	.20**
Total Protective Behavioural Strategies	.00	.22**	-.09	.24**

Note. $N = 278$ -281. * $p < .05$. ** $p < .01$.

Shame, Guilt, and Alcohol Outcome Expectancies

Relationships between shame and guilt-proneness and AOES subscales for Sample 2 can be found in Table 14. As can be seen and with regard to positive alcohol outcome expectancies, guilt-free shame was significantly and positively associated with the total positive alcohol effects belief, the belief that alcohol affords positive social facilitation benefits, and also the belief that alcohol provides sexual enhancement. These relationships were all small in terms of magnitude. There was a small-magnitude, non-significant trend between guilt-free shame the belief that alcohol has negative reinforcement tension reduction properties. With regard to negative alcohol outcome expectancies, guilt-free shame was significantly and positively associated with the total negative effects belief, the belief that alcohol consumption results in negative emotional consequences, the belief that alcohol use results in negative and unpleasant physical effects, and the belief that alcohol results in the short-term diminishment of cognitive/performance ability. These relationships were all small in magnitude, with the exception of the positive relationship between guilt-free shame and the belief that alcohol use results in negative emotional consequences, which was medium.

Table 14

Relationships Between Shame and Guilt-Proneness and the Alcohol Outcome Expectancies Scale Subscales (Sample 2)

	Bivariate Correlations		Part Correlations	
Measure	Shame	Guilt	Shame	Guilt
Positive Effects				
Social (positive)	.21**	.02	.22**	-.06
Fun	.05	-.07	.08	-.09
Sex	.10	-.08	.14*	-.13*
Tension Reduction / Negative Reinforcement	.10	-.01	.11†	-.05
Total Positive Effects	.15*	-.05	.18**	-.11
Negative Effects				
Social (negative)	-.01	-.26**	.10	-.28**
Emotional	.24**	-.05	.28**	-.15*
Physical	.17**	-.02	.19**	-.09
Cognitive/Performance	.19**	-.02	.21**	-.10
Total Negative Effects	.20**	-.10	.26**	-.19**

Note. $N = 276 - 280$. * $p < .05$. ** $p < .01$. † $p = .06$.

In contrast and with regard to positive alcohol beliefs, shame-free guilt was significantly and negatively related to the belief that alcohol provides sexual enhancement, although this relationship was small in magnitude. In terms of negative beliefs, small-magnitude negative relationships were found between shame-free guilt and total negative alcohol outcome expectancy belief, as well as the belief that alcohol results in negative emotional consequences (i.e., emotional regulation difficulties). In addition, a medium-magnitude negative relationship was found between shame-free guilt and the belief that alcohol results in negative social consequences.

Shame, Guilt, and the Reaching of Alcohol Use Milestones

Relationships between shame and guilt-proneness and the reaching of alcohol use milestones for Samples 1 and 2 are presented in Table 15. Twenty nine individuals (6.8%) in Sample 1 and 31 individuals (11%) in Sample 2 reported having never consumed alcohol to the extent of intoxication. For the item assessing the individual's school grade at the time they consumed their first alcohol beverage, a portion of participants (11.7% in Sample 1 and 8.2% in Sample 2) either failed to respond to the item or provided responses outside of the Grade 1 to 12 response window and were therefore not included in the analyses. For the item assessing the individual's school grade at the time of first intoxication, a portion of participants (23.3% in Sample 1 and 21% in Sample 2) either failed to respond to the item, had never consumed alcohol to the extent of intoxication, or provided responses outside of the Grade 1 to 12 response window, and were therefore not included in the analyses.

Table 15

Relationships Between Shame and Guilt-Proneness and the Reaching of Alcohol Use Milestones for Sample 1 and Sample 2

	Bivariate Correlations		Part Correlations	
Measure	Shame	Guilt	Shame	Guilt
Age alcohol first consumed (more than a few sips)				
Sample 1	-.03	.02	.03	.04
Sample 2	.11	.15*	.05	.12*
School grade at the time of first alcohol use				
Sample 1	.09	.06	.04	.03
Sample 2	.09	.18**	.03	.15*
Age alcohol first consumed to intoxication				
Sample 1	-.04	.07	.02	.07
Sample 2	.08	.13*	.03	.11
School grade at the time of first intoxication				
Sample 1	.09	.09	.05	.07
Sample 2	.07	.15*	.02	.14*

Note. * $p < .05$. ** $p < .01$. Sample 1 $N = 329$ - 424. Sample 2 $N = 219$ - 279.

As can be seen in Table 15, proneness to guilt-free shame was unrelated to the reaching of all alcohol use milestones including age of first alcoholic drink and age of first alcohol-related intoxication in both Sample 1 and Sample 2. In contrast, shame-free guilt was positively and significantly related to the age at which alcohol was first consumed and the school grade at the time of first consumption, but only in Sample 2. However, these relationships were both small in terms of magnitude. A positive, small-magnitude relationship was also found between shame-free guilt and the school grade an individual was in at the time of their first alcohol-related intoxication, but only in Sample 2.

Shame, Guilt, and Drinking-Related Perceptions

Relationships between shame and guilt-proneness and the DRPS for Sample 2 can be found in Table 16. As shown, guilt-free shame was unrelated to the perceived level of alcohol that would it would be necessary to consume before the experience of positive consequences. However, a medium-magnitude negative relationship was found between guilt-free shame and the perceived level of alcohol that would need to be consumed before the experience of *negative* consequences.

Table 16

Relationships Between Shame and Guilt-Proneness and the Drinking-Related Perceptions Scale (Sample 2)

	Bivariate Correlations		Part Correlations	
Measure	Shame	Guilt	Shame	Guilt
Perceived level of alcohol consumption before positive consequences index	-.11	-.26**	-.01	-.24**
Perceived level of alcohol consumption before negative consequences index	-.30**	-.20**	-.24**	-.10

Note. $N = 267 - 278$. * $p < .05$. ** $p < .01$.

An opposite picture emerged for shame-free guilt. While shame-free guilt was unrelated to the perceived level of alcohol that would need to be consumed before negative consequences occur, a medium-magnitude negative relationship was found between shame-free guilt and the perceived level of alcohol that it would be necessary to consume before the experience of *positive* consequences.

Shame, Guilt, and Drinking Motives

Relationships between shame and guilt-proneness and the MDMQ-R for Samples 1 and 2 are presented in Table 17. As can be seen, small to medium-magnitude positive relationships were found between guilt-free shame and drinking as a means to cope with anxiety and depression in both Sample 1 and Sample 2. Moreover, small to medium-magnitude positive relationships were found between guilt-free shame and the motivation to drink due to conformity across both samples. Guilt-free shame was also positively and significantly

associated with drinking as means of enhancing mood in Sample 2, but this relationship was small in magnitude and was not evident in Sample 1.

Table 17

Relationships Between Shame and Guilt-Proneness and the MDMQ-R For Sample 1 and Sample 2

		Bivariate Correlations		Part Correlations	
Measure		Shame	Guilt	Shame	Guilt
Modified DMQ-R					
Social					
	Sample 1	.07	-.03	.09	-.06
	Sample 2	.07	.02	.07	-.01
Coping-Anxiety					
	Sample 1	.21**	.00	.23**	-.10*
	Sample 2	.29**	.03	.30**	-.09
Coping-Depression					
	Sample 1	.16**	-.08	.21**	-.16**
	Sample 2	.27**	-.02	.30**	-.13*
Enhancement					
	Sample 1	-.02	-.11*	.03	-.11*
	Sample 2	.10	-.13*	.16*	-.18**
Conformity					
	Sample 1	.19**	-.02	.22**	-.11*
	Sample 2	.27**	.04	.27**	-.07

Note. * $p < .05$. ** $p < .01$. Sample 1 $N = 421$ - 427. Sample 2 $N = 278$ - 281.

In contrast, small-magnitude negative relationships were found between shame-free guilt and drinking as a means to cope with depression in both Sample 1 and Sample 2. Across both samples, shame-free guilt was also negatively related to drinking as a means of enhancing mood, although the magnitude of these relationships was small. Finally, small-magnitude negative relationships were also found between shame-free guilt and drinking as a means of coping with anxiety and drinking out of conformity, but only in the higher powered Sample 1.

Discussion

The aim of the study presented in this chapter was to explore several mechanisms and possible explanatory variables that have been put forward as a means of understanding the inverse relationship between guilt-proneness and alcohol problems and the apparent positive relationship between shame-proneness and problematic alcohol use. Extending on previous research (e.g., Dearing et al., 2005; Meehan et al., 1996; O'Conner et al. 1994; Study 1, Chapter 6), this study sheds additional light on these relationships by providing insight into the motivations, perceptions, beliefs, and self-regulatory behaviours that shame and guilt-prone individuals appear to have with regard to alcohol use. The respective and oftentimes divergent relationships between shame and guilt and the alcohol use-related variables considered in this study will now be discussed.

Shame, Guilt, and Alcohol Use Motives

One of the central aims of the study reported in this chapter was to ascertain the reasons or motivations for which shame and guilt-prone individuals

consume alcohol. In line with the prominent but seemingly untested shame-alcohol use-shame spiral hypothesis elaborated upon by numerous theorists (e.g., Dearing et al., 2005; Potter-Efron, 2002; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007), it was predicted that shame-proneness would be associated with drinking as a means of down-regulating negative emotions. This hypothesis was well supported, with small to medium-magnitude positive relationships emerging between shame-proneness and the motivation to drink as a means of coping with anxiety and depression in both Samples 1 and 2. The finding of a positive relationship between shame-proneness and drinking to cope is notable as evidence suggests that using alcohol to down-regulate negative affective states places individuals at a greater risk of becoming alcohol dependent (Carpenter & Hassin, 1999; Holahan et al. 2003). Moreover, this finding suggests that shame-prone individuals may have significant deficits in their capacity to cope with negative affect states using adaptive strategies.

While it was hypothesised that guilt-proneness would be *unrelated* to drinking as a means of down-regulating negative emotions, small-magnitude *negative* correlations were found between guilt-proneness and drinking to cope with depression across both samples and drinking to cope with anxiety in Sample 2. As such, and consistent with a large body of research indicating that guilt is associated with adaptive self-regulatory outcomes (Tangney & Dearing, 2002), it appears guilt-prone individuals are less likely to rely on alcohol as a means of down-regulating and coping with negative emotional states than their less guilt-prone peers.

Interestingly, across both samples, small-magnitude positive relationships were found between shame-proneness and the motivation to consume alcohol out

of reasons of conformity. Cooper (1994) suggests that the motivation to drink alcohol due to conformity operates according to negative-reinforcement principles in that it may help individuals avoid peer or group-based rejection. Indeed, the finding that shame-prone individuals are inclined to drink out of conformity is consistent with research indicating that shame is positively associated with fear of negative evaluation from others and a fear of the loss of social approval (Lutwak & Ferrari, 1997).

While it was hypothesized that guilt-proneness would be positively related to a social facilitation-based motivation to drink, no significant relationship was found in either sample. In addition to the negative relationships found between guilt-proneness and a motivation to drink to down-regulate negative affect states, small-magnitude negative relationships were also found between guilt-proneness and drinking for positive-reinforcement enhancement-related (e.g., mood elevation) purposes across both samples. A small-magnitude negative relationship between guilt-proneness and drinking out of conformity was also found in Sample 1.

In summary, shame-proneness was found to be positively associated with several motivational domains for consuming alcohol, including drinking to cope with anxiety and depression, and drinking out of conformity. These findings provide empirical support for the widely discussed hypothesis that shame-prone individuals are motivated to consume alcohol in an attempt to down-regulate negative emotional states (see Dearing et al., 2005; Potter-Efron, 2002; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007). Guilt-proneness, on the other hand, was either unrelated or negatively related to each of the reasons for drinking assessed in this study, including the tendency to drink to

cope with negative affect. This suggests guilt-prone individuals are not motivated to use alcohol as a means of manipulating their affective states.

Taken together, these findings may help explain the link between shame-proneness and alcohol problems as according to cognitive theories of addiction, relying on alcohol as a mood adjuster can lead to the development disordered alcohol use (see Beck, Wright, Newman, & Liese, 2001). Conversely, guilt-prone individuals do no appear to be inclined to use alcohol to manage their affective states and it seems plausible that this may offer such individuals some degree of protection against developing alcohol problems.

Shame, Guilt, and Alcohol Outcome Expectancies

In addition to determining what explicitly drives or motivates shame and guilt-prone individuals to consume alcohol, a further aim of the present research was to determine the *beliefs* that shame and guilt-prone individuals hold with regards to the effects of alcohol consumption. Beliefs in the expected effects or consequences of alcohol use, whether they are positive (e.g., *"I feel happy"*) or negative (e.g., *"I get a hangover"*) are predictive of alcohol use and are thought to play a role in the maintenance of drinking behaviour (Leigh & Stacy, 1993).

The hypothesis that shame-proneness would be positively associated with the belief that alcohol has negative reinforcement tension reduction properties was not supported, although a non significant small-magnitude trend was found ($r = .11$, $p = .06$). This suggests that shame-prone individuals do not appear to have a particularly strong belief that alcohol is actually *effective* in reducing tension.

Interestingly and as hypothesized, a medium-magnitude positive relationship was found between shame-proneness and the belief that negative emotional consequences arise following the consumption of alcohol (e.g., feeling sad or depressed). Thus, and despite a self-reported *motivation* to drink alcohol to cope with anxiety and depression, shame-prone individuals appear to believe that this drinking-to-cope strategy is oftentimes ineffective and results in *additional* negative affect. This finding is notable as it provides empirical support for a component of the shame–alcohol use–shame spiral hypothesis elaborated upon by Potter-Efron (2002) and other theorists (Dearing et al., 2005; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007). More specifically, shame-prone individuals, who are prone to negative affect (Tangney et al., 1995) and have a propensity to experience alcohol problems (Dearing et al., 2005; Study 1, Chapter 6), report a tendency to drink the cope with anxiety and depression but also believe that alcohol results in the burden of emotional deregulation and *additional* negative affect.

In addition to the belief that consumption of alcohol results in the experience of negative affect, shame-proneness was positively related to the holding other negative alcohol outcome expectancy beliefs. Notably, small-magnitude positive relationships were found between shame-proneness and the beliefs that alcohol results in deleterious physical outcomes (e.g., nausea) and declines in general cognitive performance (e.g., clumsiness or having problems with memory and concentration). These negative beliefs are generally congruent with the findings of Study 1 (Chapter 6) which indicate that shame-proneness is positively associated with the actual experience of such alcohol-related negative consequences.

Shame-prone individuals do nonetheless believe and expect that alcohol yields some favorable consequences with positive, small-magnitude relationships found between shame-proneness and the positive alcohol outcome expectancy beliefs that alcohol aids social facilitation and affords sexual enhancement benefits. Given the association between shame-proneness and social anxiety (Lutwak & Ferrari, 1997), shame-prone individuals may hold the belief that alcohol helps serve to reduce physiological arousal and other anxiety-related phenomena experienced in social contexts and possibly also in the lead up to and during intimate encounters.

In contrast to shame-proneness which was positively related to a number of positive and negative alcohol outcome expectancy beliefs, guilt-proneness was either unrelated or *negatively* related to the holding of such beliefs. While it was hypothesized that guilt-proneness would be positively associated with the belief that alcohol consumption affords social facilitation benefits, no relationship was found.

With regard to other positive alcohol outcome expectancy beliefs, a small-magnitude negative relationship was found between guilt-proneness and the belief that alcohol consumption provides sexual enhancement in that it helps facilitate sexual experiences. In turn, this may help inhibit guilt-prone individuals from engaging in potentially risky sexual practices after or while drinking, a suggestion consistent with findings from Study 1 (Chapter 6) which found that guilt-proneness is significantly and inversely related to risky behaviours while consuming alcohol.

Also consistent with the results of Study 1 (Chapter 6), which indicated that guilt-proneness is negatively related to deleterious social and interpersonal

consequences while drinking (e.g., saying harsh or cruel things), a medium-magnitude *negative* relationship was found between guilt-proneness and the belief that alcohol use results in negative social consequences. More specifically, guilt-prone individuals were less inclined to believe that alcohol consumption leads them to become mean, quarrelsome, and get into physical confrontations than their less guilt-prone peers. Finally, and in contrast to shame-proneness which demonstrated a positive relationship, a small-magnitude negative relationship was found between guilt-proneness and the belief that alcohol consumption results in negative emotional consequences in the form of negative affect and emotion deregulation. Thus, while it appears that shame-prone individuals typically expect and believe that that the consumption of alcohol will have a negative impact on their mood state, guilt-prone individuals expect and believe that they are able to avoid such negative emotional experiences after having consumed alcohol. These findings are broadly congruent with research indicating that shame-proneness is associated with general emotion regulation difficulties, while guilt-proneness tends to be unrelated to such problems (Tangney et al., 1992).

Shame, Guilt, and the Use of Protective Behavioral Strategies While Drinking

An additional aim of the present study was to explore relationships between shame and guilt-proneness and the tendency to use of behavioural strategies which may inhibit potentially hazardous alcohol use and prevent the experience of negative consequences. The hypothesis that guilt would be associated with the use of such adaptive and risk-reducing behaviours during episodes of alcohol consumption was well supported, with a medium-magnitude

relationship found between guilt-proneness and the overall tendency to employ protective behavioral strategies. Indeed, guilt-proneness was positively associated with the tendency to engage in serious harm avoidance behaviours while drinking (e.g., using designated drivers to get home safely), the inclination to drink in a controlled and moderated manner (e.g., refraining from participating in drinking games), and the habitual use strategies so as to avoid getting excessively intoxicated (e.g., consuming only a predetermined number of drinks). These findings are noteworthy as the use of such protective cognitive-behavioural strategies during episodes of alcohol consumption is associated with a reduced rate of experiencing negative alcohol-related consequences (Martens et al., 2007).

Indeed, the finding that guilt-prone individuals produce adaptive risk-reducing behaviours while drinking is consistent with the findings of Study 1 (Chapter 6) which indicate that guilt-proneness is associated with *avoiding* of a host of deleterious alcohol-related consequences. Moreover, the positive relationship between harm avoidance drinking behaviours and guilt-proneness is consistent with Stuewig and Tangney's (2007) assertion that that guilt-prone individuals are adept at curbing behaviours that are potentially hazardous (e.g., trying to "out drink" others), perhaps due to an enhanced ability to foresee how such behaviours may be deleterious to the self and or others.

In contrast to guilt, and also as hypothesized, shame-proneness was unrelated to the overall use of harm avoidance behaviours while drinking. However, it is notable that a small-magnitude negative relationship was found between shame-proneness and the tendency to drink in a low risk and controlled manner. More specifically, shame-prone individuals were more likely to endorse items indicating that they engaged in drinking games, consumed shots of alcohol,

mixed their drinks, tended to gulp or "chug" alcohol drinks, and competed with others in terms of level and speed of alcohol consumption when drinking. Together, these findings provide additional support the notion that shame-proneness appears to play no adaptive role with regard to the regulation of alcohol use (Dearing et al., 2005; Study 1, Chapter 6). Moreover, these findings are consistent with research indicating that shame-proneness is inversely related to the dispositional tendency to engage in adaptive self-regulatory behaviours (see Tangney et al., 2004).

Shame, Guilt, and Drinking-Related Perceptions

In addition to determining whether or not shame and guilt-proneness are associated with the employment of various alcohol use-related harm reduction behaviours, the present study aimed to ascertain if self-conscious affect style is associated with differing drinking-related perceptions. Indeed, an interesting and divergent pattern of results emerged between shame and guilt-proneness with drinking related-perceptions and in particular, with regards to the alcohol quantities that would need to be consumed before the experience of various positive and negative alcohol-related consequences.

Although a positive relationship was predicted, shame-proneness was unrelated to the perceived quantity of alcohol that would need to be consumed in order to experience some of the positive effects of alcohol (e.g., social facilitation and feeling pleasant physical effects). Moreover, and *contrary* to expectations, a medium-magnitude *negative* relationship was found between shame-proneness and the perceived quantity of alcohol that would need to be consumed in order to experience *negative* consequences (e.g., nausea or passing out). This unexpected

finding suggests that shame-prone individuals perceive that negative consequences occur subsequent to the consumption of *fewer* standard drinks than their less shame-prone peers. Mallet et al. (2006) suggest that individuals refer to prior drinking experiences to guide perceptions relating to alcohol consumption levels and their possible consequences. Given the positive relationship between shame-proneness and alcohol-related consequences (Study 1, Chapter 6), it seems plausible that *previously* experienced consequences by shame-prone individuals may contribute to more conservative and perhaps more accurate perceptions of the number of drinks one can consume before a drinking episode results in deleterious outcomes.

An alternative possible explanation for this unexpected finding may lie in the depressogenic cognitive style typical of shame-prone individuals (Tangney et al., 1992). As shame-prone individuals have a propensity for making internal, global, and stable attributions for negative events, such as those presented by the *negative* drinking-related perception items included in the DRPS, shame-prone individuals may have demonstrated a tendency to respond to negative alcohol items in a slightly more pessimistic manner than their less shame-prone peers. With their tendency to generally think with a negative mindset (Tangney et al., 1992), shame-prone individuals may have been more inclined to estimate that alcohol-related negative consequences are likely to happen with the consumption of fewer standard alcoholic drinks.

It is notable that perceiving the need to consume fewer alcoholic drinks before the experience of negative consequences does not appear to help shame-prone individuals avoid problematic alcohol use and associated negative consequences (Dearing et al., 2005; Study 1, Chapter 6). Moreover, given that

shame-proneness is unrelated the quantity and frequency of alcohol use (Study 1, Chapter 6), a propensity for such perceptions does not appear to result in shame-prone individuals drinking more or less per occasion or more or less frequently.

As compared to shame-proneness, a notably divergent picture emerged for guilt-proneness and drinking-related perceptions. While guilt-proneness was unrelated to the perceived quantity of alcohol that would need to be consumed in order to experience *negative* alcohol-related consequences, a medium-magnitude negative relationship was found between guilt-proneness and the perceived number of standard drinks that needed to be consumed before the experience of *positive* consequences. Thus, for the guilt-prone individual, the positive effects of alcohol (e.g., mood enhancement, pleasant physical effects, and social facilitation) are perceived as coming with fewer drinks than true for their less guilt-prone peers.

As guilt-proneness has been found to be inversely related to alcohol problems (Dearing et al., 2005), alcohol dependence, and heavy episodic drinking (Study 1, Chapter 6), it seems plausible that any amount of consumed alcohol may result in a greater physiological effect for the guilt-prone individual (i.e., such individuals may become tipsy sooner and with less consumption, or simply have less tolerance of alcohol). With their enhanced ability to control their alcohol intake and avoid *negative* alcohol consequences (Study 1, Chapter 6), guilt-prone individuals may to some extent rein in their drinking subsequent to the experience of *positive* consequences which are perceived as occurring early on in drinking episodes.

Shame, Guilt, and the Reaching of Drinking-Related Milestones

An additional aim of the study reported in this chapter was to explore relationships between shame and guilt-proneness and the reaching of drinking-related milestones, namely the age and school grade at the time of alcohol use onset and the first instance of drinking until intoxication. The hypothesis that guilt-proneness would be associated with a later reaching of alcohol use milestones was partially supported, but not in a consistent manner. While there was no significant relationship between guilt-proneness and the reaching of alcohol use-related milestones in Sample 1, small-magnitude positive relationships between guilt-proneness and age of alcohol use onset and school grade at the time of first alcoholic drink were found in Sample 2. A small-magnitude positive relationship between guilt-proneness and the school grade an individual was completing at the time of their first intoxication was also found in Sample 2. Why these small-magnitude relationships were found between guilt-proneness and the delayed meeting of alcohol use-related milestones in Sample 2 but not in the higher powered Sample 1 remains unclear. Indeed, Sample 1 and 2 were highly similar in terms of demographic variables, levels of guilt-proneness, and the mean ages at which individuals met alcohol use-related milestones. It may be that relative to Sample 1, Sample 2 contained a several individuals whose self-reported levels of guilt-proneness and their meeting of alcohol use milestones were quite influential in terms of their impact on the overall results (i.e., highly guilt-prone who reported a meeting drinking milestones later on in life or low guilt-prone individuals who reached the drinking milestones relatively early). However, initial screening of data for outliers among the three variables

considered was undertaken and given the relatively large sample sizes, the influence of any identified was deemed to be relatively minimal.

Despite the lack of replication across samples, the Sample 2 finding that guilt-proneness was associated with a later age of drinking onset is consistent with the findings of the Longitudinal Family Study reported by Tangney and Dearing (2002). In their ongoing study investigating links between at moral affect style (i.e., shame and guilt-proneness) and subsequent self-regulatory behaviours, Tangney and colleagues found that guilt-prone fifth-graders reported first using alcohol later on in life as compared to their less guilt-prone peers when they were followed up in young adulthood. Should guilt-proneness help serve to delay the first use of alcohol, for even relatively small periods of time (e.g., 6 months or a year), the individual is likely to be afforded an incremental degree of protection against alcohol-related disorders (Grant & Dawson, 1997).

With regard to shame, the hypothesis that shame-proneness would be associated with the earlier initiation of alcohol use and drinking to the extent of intoxication was not supported in either samples. With no significant relationships emerging across samples, these null findings fail to replicate those of the Longitudinal Family Study (Tangney & Dearing, 2002; Tangney et al., 2007) which found that shame-proneness, as measured in grade five, predicted subsequent and earlier alcohol use onset. Nonetheless, the findings of no relationship between shame-proneness and the reaching of alcohol use milestones provides further support for the notion that that shame appears to play no adaptive role in the regulation of alcohol use (Dearing et al., 2005; Study 1, Chapter 6). Moreover, these findings are consistent with a large body of research

indicating that shame-proneness fails to play a role in inhibiting potentially hazardous behaviours such as initial alcohol use (Tangney & Dearing, 2002).

It should be noted that the methodology adopted in the present study to explore links between shame, guilt, and the reaching of alcohol-related milestones had several limitations which must be acknowledged. Firstly, individuals were required to retrospectively recall their reaching of alcohol use milestones including their age at the time of their first alcoholic drink, which for some individuals, may have been many years ago. While individuals tend to be reasonably reliable in their estimates of the age at which they had their first alcoholic beverage (Johnson & Mott, 2001), there was still likely to have been some degree of error in participant recollections of their meeting of alcohol use-related milestones.

Secondly, the present study assumed that *current* shame and guilt-proneness, as was assessed in the present study, was predictive of an individual's shame and guilt-proneness for the period preceding their meeting of alcohol-related milestones (i.e., shame and guilt-proneness levels were stable over time). While Tangney and Dearing (2002) report that their TOSCA measures demonstrate some degree of temporal stability with shame and guilt-proneness assessed at age 12 with the children's version of the TOSCA (TOSCA-C; Tangney, Wagner, Burggraf, Gramzow, & Fletcher, 1990) predicting proneness to shame-free guilt (r = .40) and guilt-free shame (r = .37) at age 18 as assessed by the adult version (TOSCA; Tangney et al., 1989), variability in trait levels over time may have clouded the drinking milestone results somewhat.

Summary

Findings of the present study have shed light on some of the possible reasons for why shame-proneness has been found to be positively linked to alcohol-related problems while in contrast, guilt-proneness has been found to be positively related to the successful regulation of alcohol use. Across samples, shame-prone individuals reported drinking as a means of down regulating negative emotions but also endorsed the belief that alcohol use often results in emotion deregulation and additional negative affect. On the other hand, guilt-proneness was *inversely* related to drinking to cope with negative emotions, and was either unrelated or inversely related to all other motivations for drinking. These findings are notable in that they appear to provide the first empirical support for the shame-alcohol use-shame spiral hypothesis, the notion that shame-prone individuals are motivated to consume alcohol in order to down-regulate negative emotional states (Dearing et al., 2005; Potter-Efron, 2002; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007).

In addition to having contrasting motivations for consuming alcohol, guilt and shame-prone individuals reported having different perceptions pertaining to the alcohol quantity that must be consumed in order to experience various alcohol-related consequences. While shame-proneness was associated with the perception that *negative* consequences occur with the consumption of less alcohol, guilt-proneness was associated with the perception that *positive* consequences occur with the consumption of fewer drinks. With respect to the explicit use of alcohol use regulation strategies, guilt-proneness was significantly and positively associated with the use of multiple adaptive and protective behaviours while drinking. On the other hand, shame-proneness was unrelated to

the use of such behaviours. Finally, some (albeit inconsistent) evidence was found to indicate that guilt-proneness may be associated with a slightly delayed onset of alcohol use and the postponement of the first episode of drinking until intoxication. Taken together, findings from the present study provide additional support for Dearing et al.'s (2005) argument that it is important and necessary to differentiate between shame and guilt when considered in alcohol research and treatment contexts.

Study 1 (Chapter 6) and Study 2 of the present Thesis have examined the respective relationships between generalized shame and guilt-proneness with a host of alcohol use-related variables. An important line of future research is to examine the unique correlates and motivational outcomes of shame and guilt experienced *specifically* in response to transgressive alcohol use (i.e., alcohol use-*related* shame and guilt).

CHAPTER 8

Study 3: Measuring Alcohol Use-Related Shame and Guilt: Development and Initial Psychometric Validation of the Perceptions of Drinking Scale (PODS)

Shame and guilt are generally unwelcome but commonly experienced self-conscious emotions of negative affect that are typically experienced subsequent to the contravention of internalised moral principles or failure (Tangney & Dearing, 2002). Despite the notable similarities between the two emotions, shame and guilt-proneness have seemingly divergent implications for the regulation of substance use (Dearing et al., 2005; Meehan et al., 1996; O'Connor et al., 1994; Study 1, Chapter 6). While dispositional shame-proneness appears to be positively related to substance use disorders, guilt-proneness appears to be inversely related to – and hence possibly protective against - problematic substance use.

In addition to research suggesting that shame and guilt-proneness have disparate implications for the experience of alcohol use problems (Dearing et al., 2005; Study 1, Chapter 6), the two self-conscious affect styles are associated with differing motivations for consuming alcohol (Study 2, Chapter 7). Consistent with the shame-alcohol use-shame spiral hypothesis (Dearing et al., 2005; Potter-Efron, 2002; Tangney & Dearing, 2002; Wiechelt, 2007), shame-proneness has been found to be positively associated with the motivation to consume alcohol as a means of down-regulating experiences of anxiety and depression (Study 2, Chapter 7). In contrast, guilt-proneness has been found to be *negatively* related to

the motivation to consume alcohol in order to down-regulate these negative affect states.

Providing further support for the notion that guilt is associated with the adaptive self-regulation of alcohol use, Study 2 (Chapter 7) found that guilt-proneness is positively associated with the tendency to employ alcohol-related protective behavioural strategies while drinking (e.g., limiting alcohol intake, drinking in a controlled manner, and refraining from engaging in potentially risky behaviours: see Martens et al., 2007). In contrast, shame-proneness was found to be unrelated to the use of these harm avoidance strategies while consuming alcohol.

It is however, noteworthy that each of the studies which have examined links between shame and guilt and alcohol use-related variables have employed variants of the TOSCA (Tangney & Dearing, 2002) in order to measure shame and guilt-proneness (e.g., Dearing et al., 2005; Study 1, Chapter 6; Study 2, Chapter 7). As discussed in Chapter 2, the TOSCA-3 (Tangney et al., 2000) seeks to assess an individual's dispositional propensity to experience the two emotions in response to a wide array of commonly occurring transgressions (e.g., standing someone up for a date or mismanaging a project at work). With a focus on measuring an individual's trait level propensity to experience shame or guilt, it has been argued that the TOSCA pays more attention to individual differences in self-conscious affect style rather than the situational antecedents and unique transgressions which elicit these emotions (Leeming & Boyle, 2004).

In a critique of the shame literature's heavy emphasis on *dispositional* shame-proneness, Leeming and Boyle (2004) have argued that this approach fails to address the specific domains or contexts in which individuals experience

shame. In turn, the dispositional approach largely neglects the possibility that experiences of shame may be particularly pronounced for some people in relation to discrete life domains, but not others. An approach that takes into consideration context and domain specificity, Tangney et al. (2007) note that a recently emerging way of conceptualizing problematic experiences of shame is the extent to which individuals are chronically and pervasively ashamed about certain transgressive behaviours (e.g., substance use, binge eating, gambling) or personal characteristics (e.g., weight, physical appearance, sexual orientation, ethnicity).

Acknowledging that experiences of the two emotions may be particularly pronounced for some people in certain life contexts, a number of researchers have sought to develop domain-specific measures of shame and guilt (e.g., Conradt et al., 2007; Kubany et al., 1996, 1997; Thompson et al., 2003, 2008; Wright & Gudjonsson, 2007). This includes measures assessing body-related shame and guilt (Conradt et al., 2007; Thompson et al., 2003), shame and guilt experienced in achievement-related contexts (Thompson et al., 2008), shame and guilt experienced subsequent to engaging in criminal behaviours (Wright & Gudjonsson, 2007), and guilt experienced in response to having survived traumatic events (Kubany et al., 1996, 1997).

These domain specific measures have allowed research teams to examine the unique correlates of shame and guilt experienced specifically about a personal attribute or in specific life domains. For example, Markham et al. (2005) have investigated the role of body-related shame in eating disorder symptomatology, while Thompson et al. (2008) have examined links between achievement-related shame proneness and the dispositional fear of failure experienced in achievement-related contexts. Research has also been conducted investigating the relationship

between experiences of trauma-elicited "survivor guilt" and subsequent psychological adjustment (e.g., Kubany et al., 1995, 1996, 1997).

While there has been a growing acknowledgement in the literature of the desirability of exploring domain specific experiences of shame and guilt (e.g., Leeming & Boyle, 2004; Mills, 2005; Tangney et al., 2007), there does not appear to have been any substantial empirical investigation of the correlates of alcohol use-related shame and guilt. Indeed, a notable obstacle in conducting such research is that there is currently no measure available that assesses feelings of guilt and shame experienced *specifically in response* to problematic alcohol use and associated negative consequences (see Chapter 2).

Potential Research Applications of an Alcohol Use Shame and Guilt Measure

A measure of alcohol use-related shame and guilt appears to have several potential applications in research contexts. Firstly, such a measure would allow researchers to assess the extent to which individuals view their current alcohol use behaviour and experience of negative consequences as transgressive or problematic. Secondly, an alcohol use shame and guilt measure would allow for the exploration of the possible functions that alcohol use-related shame and guilt may have in helping individuals regulate their alcohol use. Thirdly, such a measure may be of use in helping to identify strategies that enhance potentially adaptive feelings of guilt and minimise potentially maladaptive experiences of shame in instances of problematic alcohol use. Fourthly, the measure could be used to determine which, if any, particular consequences are more or less likely to give rise to alcohol-related shame and or guilt. Finally, an alcohol use-related shame measure would aid further empirical exploration of the hypothesised

shame-alcohol use-shame spiral hypothesis (see Dearing et al., 2005; Potter-Efron, 2002; Tangney & Dearing, 2002; Wiechelt, 2007).

Potential Clinical Applications of an Alcohol Use Shame and Guilt Measure

In addition to the potential research applications of a newly developed measure of alcohol use-related shame and guilt, such an assessment tool may also have some utility in clinical alcohol treatment settings. Given that difficulties are often encountered by therapists when screening for shame and guilt in alcohol treatment settings (Potter-Efron, 2002), a brief self-report measure that indicates levels of alcohol use-related shame and guilt is likely to offer clinicians valuable treatment-relevant information. The ability to identify experiences of shame in treatment contexts appears to be particularly important given that the aversive emotion has been associated with a reluctance or failure to disclose therapy-relevant information in clinical settings (e.g., Swan & Andrews, 2003). Indeed, the suggestion that shame impedes clinical process is echoed by Morrison (1984) who notes that notes that while "guilt feelings bring material into an interview", shame "…keeps [material] out" (p.11).

Given that shame and guilt appear to represent important treatment-relevant variables in alcohol use clinical settings (Potter-Efron, 2002), an alcohol use-related shame and guilt measure may help clinicians to identify if individuals are experiencing either of the two emotions in response to their transgressive alcohol use. If potentially maladaptive feelings of shame *are* identified, the treating clinician may wish to focus on diffusing their clients' experience of the aversive and typically unhelpful emotion (Wiechelt, 2007). In contrast, if it becomes apparent that the individual is experiencing alcohol use-related guilt, the

treating clinician may be able to cautiously harness the emotion as powerful and perhaps necessary motivator for change. Finally, an alcohol use-related shame and guilt measure may be of some use in exploring the emotional sequelae of various commonly employed treatment approaches and strategies which aim to reduce alcohol consumption (e.g., normative feedback, brief interventions, motivational interviewing, Alcoholics Anonymous programs, and confrontation based strategies). That is, such a measure is likely to be useful for the identification of strategies and interventions that enhance potentially adaptive feelings of guilt and minimise maladaptive shame during the treatment of problematic alcohol use.

Are Experiences of Alcohol Use-Related Shame and Guilt Implicated in Readiness to Change Problematic Drinking Behaviour?

An alcohol use-related shame and guilt measure would also aid in the exploration of the respective roles of the two emotions in helping individuals to regulate their alcohol use, including motivating individuals to change their drinking habits if necessary. Motivation and readiness to reduce alcohol consumption have been identified as important factors that contribute to decreased alcohol consumption among problem drinkers (Miller & Rollnick, 2002). With regards to the intentional cessation of unhealthy, problematic, or otherwise hazardous behaviours (e.g., excessive alcohol use), several theorists have argued that individuals can be categorized according to the extent of and nature of their readiness (e.g., Connors et al., 2001; Prochaska et al., 1992).

The *Transtheoretical Model of Behaviour Change* (TTM), developed by Prochaska et al. (1992), argues that an individual's readiness to change his or her

behaviour can be conceptualised and described by the stages of *Precontemplation*, *Contemplation* and *Action*. An individual in the *Precontemplation* stage is not considering any immediate behavioural changes and is unaware, unable, or unwilling to acknowledge that that a change in behaviour would be associated with positive outcomes (Connors et al., 2001; DiClemente & Prochaska, 1998). Individuals in the *Contemplation* stage recognize the problematic nature of their behaviour and are aware of the potential positives associated with behaviour change, but experience considerable ambivalence with regards to actually initiating adaptive change (Connors et al., 2001). In the more advanced *Action* stage, the individual takes steps to proactively address and change their problematic behaviour (e.g., a decision is made and acted upon to consume less alcohol). By remedying their problematic behaviour, the individual in the *Action* stage reduces his or her risk of harm and the likelihood of experiencing other deleterious outcomes as a consequence of the behaviour in question (DiClemente & Prochaska, 1998)

A number of factors have been identified that predict an individual's readiness to change problematic drinking behaviour including self-efficacy beliefs, attitudes, normative beliefs, and mortality salience (Connors et al., 2001; Miller & Rollnick, 2002; Rollnick et al., 2008). However, at present, there has been no empirical exploration of the respective roles of that alcohol use-related shame and guilt each play in predicting an individual's readiness to change problematic drinking behaviour. Given that shame is characterised by problem avoidance and tends to be unrelated or inversely related to adaptive self-regulatory behaviours (Tangney et al., 2007; Tangney & Dearing, 2002), it may

be that shame is a relatively poor predictor of an individual's readiness to actively change their change drinking behaviour.

While shame is often associated with a general failure to proactively address the shame eliciting behaviour, guilt promotes ameliorative action in that it motivates an individual to "fix" one's transgressions (Tangney et al., 2007; Tangney & Dearing, 2002). Given the problem-approach function of guilt, it may be that alcohol use-related guilt is a relatively good predictor of proactively contemplating change and more actively addressing problematic alcohol use behaviour. That is, it seems plausible that alcohol use-related guilt may help compel an individual to better acknowledge and address drinking that goes awry.

The Present Study: Aims and Hypotheses

With potential utility in research and clinical settings, the purpose of the study reported in this chapter was to develop and conduct an initial psychometric validation of the Perceptions of Drinking Scale (PODS), a self-report measure of alcohol use-related shame and guilt. The second overall aim was to examine the concurrent, convergent, and discriminant validity of this newly developed measure.

As an assessment of concurrent validity, it was expected that the PODS-Shame and Guilt subscales would both be associated with disordered alcohol use and the experience of negative alcohol-related consequences. It was further anticipated that alcohol use-related shame and guilt would each be positively correlated to measures of theoretically related constructs and in contrast, would demonstrate null correlations with theoretically unrelated constructs (see Table 18).

Given the consistently observed link between shame and psychopathology (e.g., Tangney et al., 1992), it was expected that the PODS-Shame subscale would be positively related to measures of negative affect (i.e., stress, depression, anxiety). It was further expected that the PODS-Shame subscale would be positively correlated with the tendency to generalize single failures to one's entire self and the dispositional tendency to experience shame. Consistent with research linking shame with the use of potentially problematic avoidance-based coping strategies (Tangney & Dearing, 2002), it was also expected that the PODS-Shame subscale would be positively correlated with the tendency to cope with adversity by employing behavioural disengagement, denial, and self-blame based coping strategies. Finally, given research indicating that shame appears to be largely ineffective at helping inhibit inadvisable or otherwise hazardous behaviours (Stuewig & Tangney, 2007; Tangney et al., 2007; Tangney & Dearing, 2002), it was hypothesized that PODS-Shame would be unrelated or negligibly related to the more proactive readiness to change drinking behaviour stages (i.e., contemplation and action).

Table 18

Hypothesized Relationships Between the PODS Shame and Guilt Subscales and the Validation Measures Employed

Validation Constructs	PODS-Shame	PODS-Guilt
DASS21		
Stress	+	0
Anxiety	+	0
Depression	+	0
Total	+	0
COPE		
Behavioural Disengagement	+	0
Denial	+	0
Self-Blame	+	0
ATS-R		
Generalization	+	0
TOSCA-3		
Shame	+	0
Guilt	0	+
RTCQ		
Precontemplation	-	-
Contemplation	0	+
Action	0	+
Readiness to Change Ruler		
Total	0	+

Note: + denotes a positive correlation; 0 denotes an absence of a significant relationship; − denotes a negative correlation. PODS = Perceptions Of Drinking Scale; DASS = Depression Stress and Anxiety Scales-21; ATS-R = Attitudes Towards Self - Revised; TOSCA-3 = Test Of Self Conscious Affect-3; RTCQ = Readiness To Change Questionnaire.

In contrast to the PODS-Shame subscale, it was expected that a differing pattern of relationships would emerge for the PODS-Guilt subscale. Firstly, as guilt has been found to be generally unrelated to psychopathology (e.g., Averill et al., 2002; Tangney et al., 1992), it was hypothesized that the PODS-Guilt subscale would be unrelated to measures of negative affect (i.e., stress, anxiety, and depression). It was further expected that the PODS-Guilt subscale would be

unrelated to the use of avoidance-based coping strategies, including the use of behavioural disengagement, denial, and self-blame to cope with adversity. In terms of convergent validity, it was expected that the PODS-Guilt subscale would be positively related to generalized guilt-proneness. Finally, as research indicates that guilt helps individuals inhibit problematic behaviours and make amends for transgressive behaviours (Amodio et al., 2007; Tangney & Dearing, 2002), it was hypothesised that the PODS-Guilt subscale would be positively correlated with the more proactive stages of readiness to change drinking behaviour (i.e., contemplation and particularly, action).

Method

Overview of the Perceptions of Drinking Scale (PODS)

Mirroring the four subscale structure of the TOSCA-3 (TOSCA-3; Tangney et al., 2000), four constructs were used as a basis for item generation for the Perceptions of Drinking Scale (PODS): Alcohol use-related shame, alcohol use-related guilt, and potentially competing responses of alcohol use-related unconcern and blaming one's drinking behaviour on external causes. Theoretical underpinnings and the item generation approaches employed for each subscale will now each be discussed in turn.

Development of the Alcohol Use-Related Shame and Guilt Items for the PODS

Alcohol use-related shame and guilt items for Perceptions of Drinking Scale (PODS) were self-generated and developed in line with Lewis' (1971) influential theoretical distinction between shame and guilt, based on the role of the self in transgressions. When shamed, an individual perceives the transgressive

behaviour to be indicative of internal, stable, and global character flaws (e.g., "*I did that* thing and that means *I'm a worthless person*"). In contrast, when an individual experiences guilt, the transgressive act or behaviour is *not* seen as representative of character flaws but instead, is seen as regrettable behaviour that can and probably should be changed in the future (e.g., *I did that thing* and *I need to fix it*).

Alcohol use-related shame items were developed with several aims in mind. Firstly, in line with social-cognitive theory (Lewis, 1971; Tangney & Dearing, 2002), each of the alcohol use-related shame items aimed to measure phenomenology that suggests transgressive alcohol use-related behaviours have been attributed to characterological flaws. Secondly, several items were developed aiming to measure shame associated with excessive alcohol use, while other items sought to measure shame experienced as a result of arising negative alcohol use-related consequences. Finally, the alcohol use-related shame items aimed to tap a range of behavioural, affective, and cognitive shame-related phenomenology that might be experienced when an individual reflects on their perceived to be problematic alcohol use. In line with theory (Tangney & Dearing, 2002), this phenomenology included the perception of exposure, avoidance, a desire to hide or conceal alcohol use and consequences, a sense of negative evaluation, feeling small and defective, feelings of worthlessness, and feeling like a failure.

As with the alcohol use-related shame items, the alcohol use-related guilt items were developed with a number of specific aims. In line with social-cognitive theory (Lewis, 1971; Tangney & Dearing, 2002), each of the alcohol use-related guilt items aimed to measure phenomenology that suggests that the

individual perceives their alcohol use and or behaviour while drinking to be transgressive. Secondly, alcohol use-related guilt items were designed to indicate that the focus of negative evaluation pertains to the transgressive alcohol use and or related *behaviours,* and not any perceived characterological flaws. The final aim was to tap a broad range of theory derived behavioural, cognitive, and affective guilt-related phenomenology an individual might experience if they perceive their alcohol use and or experience of negative consequences to be transgressive. This phenomenology includes general uneasiness, anxiety, a negative evaluation of the behaviour, feelings of regret, appreciation of the impact the transgression might have had on others, and the exploration of possible reparative action or behaviour change that can be undertaken (Tangney & Dearing, 2002).

Consistent with the approach taken by Tangney and colleagues (Tangney, 1996) the explicit use of the words "shame" and "guilt" was avoided in item content so as to avoid eliciting confusion among those completing the measure. This recommendation is based on findings indicating that when asked to explicitly define shame and guilt, laypersons are highly inaccurate at differentiating between the two constructs and tend to use the terms „shame' and „guilt' interchangeably (Tangney & Dearing, 2002).

The Inclusion and Development of Items for the PODS-Unconcern Subscale

In addition to the alcohol use-related shame and guilt items developed for the PODS, several items aiming to tap thoughts and feelings of general unconcern towards one's current alcohol use were also developed. It appeared necessary to include these items in the PODS for a number of reasons. Firstly, an individual is

unlikely to experience shame or guilt if they do not perceive their alcohol use and any associated negative consequences to be problematic and thus, "transgressive". Secondly, a measure of feelings of unconcern or indifference towards alcohol use may have some utility in clinical settings. For example, if an individual in a clinical alcohol treatment setting indicates that they are not concerned by their alcohol use when other evidence suggests they perhaps ought to be (e.g., tests indicating impaired liver functioning), a clinician's goal may be to help the client come to realize that their alcohol use is hazardous.

In addition to having potential clinical utility, a measure of unconcern towards alcohol use could be used in research settings to explore the reasons *why* some individuals might not feel concerned about problematic alcohol intake and associated negative consequences. Moreover, research could help identify which strategies (e.g., normative feedback assessments, Motivational Interviewing etcetera) are effective at raising an individual's level of concern towards what might be clearly problematic alcohol use.

The unconcern items were developed to be somewhat analogous to those contained in the precontemplation subscale of Rollnick, Heather, Gold, and Hall's (1992) Readiness to Change Questionnaire, but differed in one important way. While the precontemplation construct implies that it would be advantageous for an individual to change their behaviour, the unconcern items developed for the PODS do not assume that behaviour change is necessary for functional gain (e.g., with regards to health or ability to function in important life domains). Instead, these items simply aim to assess whether or not an individual is concerned with their current alcohol use, irrespective of the extent to which they are consuming alcohol and or experiencing negative consequences. In turn, this

allows for the unconcern items to be more relevant to individuals drinking at low risk levels.

The self-generated unconcern items sought to measure general unconcern and indifference towards current alcohol use and any associated negative consequences. Careful attention was paid to the phrasing of these items so that they did not come across as accusatory (i.e., implying that individual's alcohol use and associated behaviour *are* problematic and they are not acknowledging that fact).

The Inclusion and Development of Items for the PODS-Externalization of Blame Subscale

Blaming transgressive behaviour on other people or factors outside of an individual's control is a strategy that some individual's engage in to explain away the causes of their transgressive behaviour (Tangney & Dearing, 2002). While generally associated with poor outcomes, Tangney and Dearing (2002) argue that blaming others for their own potentially problematic behaviour allows individuals to shirk responsibility for their transgressions.

Several self-generated externalization of blame items were developed for the PODS, which sought to assess an individual's proclivity to blame their alcohol use and behaviour while drinking on external factors (e.g., an individual's peer group). As with the unconcern items, attention was paid to ensure that the externalization of blame items did not come across as implying the respondent's alcohol use is actually problematic.

Instruction Set and Response Anchor Points for the PODS

The following instruction set was developed to accompany the PODS items: *"Below are several thoughts, feelings, reactions, and concerns that individuals may or may not experience when reflecting upon their drinking and any associated negative consequences. While reflecting upon your drinking over the past several months, please indicate the degree to which your experience is consistent with the following statements with 1 = "Strongly Disagree" and 5 = "Strongly Agree." There are no right or wrong answers and you are not expected to feel any particular way."* In addition to orienting respondents to the scale, one of the goals of the instruction set was to minimize potentially socially desirable responding by emphasizing to respondents that there was no "correct" way to respond to items.

Initial Item Pool Generation, Piloting, Refinement, and Reduction

Consistent with Haynes, Richard, and Kubany's (1995) recommendation, a large pool of 80 items was generated that aimed to encapsulate the phenomenology of the four intended constructs; alcohol use-related shame (22 items), alcohol use-related guilt (20 items), unconcern towards alcohol use (21 items), and externalization of blame (17 items). These items were then subject to a pilot study whereby feedback and item revision suggestions were sought by 11 registered or provisionally registered psychologists undertaking clinical training. Based on this piloting process, items identified as ambiguous, double barreled, or otherwise problematic were refined or discarded.

The second stage of the piloting process involved trialing the PODS items and the instruction set with a small group of individuals with self-identified

problematic alcohol use. This small pilot group comprised two men and three women who were all actively engaged in a support program for alcohol dependence. After being provided with a rationale of the pilot study and obtaining their informed consent, participants were requested to complete a preliminary version of the PODS measure and comment on any items they felt were unclear, ambiguous, or problematic in any way. Pilots were thanked and debriefed at the conclusion of the piloting exercise.

Using the aforementioned strategies, the initial piloting phase resulted in a set of 69 remaining items (see Appendix O). To further reduce the item pool, items which were very similar in terms of wording and item content were removed or retained at the subjective discretion of the investigator, with an additional 25 items removed. Finally, with the goal of creating a relatively brief scale (i.e., between 15 and 20 items), the remaining items in the pool were then subject to preliminary testing using exploratory factor analysis based procedures with a small portion of Sample 1 data ($N = 65$). In these preliminary analyses and with the goal of arriving at a final solution with approximate simple structure, items with salient loadings on more than one factor were discarded, as were those which failed to saliently load on any factors. Factor loadings were considered salient if they were greater than .40 (Stevens, 1992). Having employed these aforementioned strategies, the item pool was further reduced to a final set of 17 items seeking to assess the four intended constructs: Alcohol use-related shame (5 items), alcohol use-related guilt (5 items), externalization of blame (4 items), and unconcern (3 items).

Participants

In Sample 1, participants were 293 individuals drawn from the local community and from a variety of degree programs at the University of Tasmania, Australia. Sample 1 in the present study was largely homogenous to that described as Sample 2 in the previous two studies. The ages of participants ranged from 17 to 62 (M = 22.25, SD = 7.87). The mean age for the 80 male participants was 22.06 (SD = 7.27), while the mean age of the 213 female participants was 22.31 (SD = 8.10). With regard to ethnicity, 92% were White, 4% were Asian, and 4% were of other or mixed ethnicity. Eleven individuals were excluded from Sample 1 due to missing data or for failing to complete the PODS measure according to standardized instructions.

Participants comprising the independent Sample 2 were 429 individuals also drawn from the local community and variety of degree programs at the University of Tasmania, Australia. Sample 2 in the present study was largely homogenous to that described as Sample 1 in the previous two studies. The ages of participants ranged from 17 to 69 with a mean age of 23.87 (SD = 8.97). The mean age for the 109 male participants was 25.63 (SD = 10.62), while the mean age of the 311 female participants was 23.29 (SD = 8.53). Four participants failed to state their gender and five participants failed to state their age. With regard to ethnicity, the sample was predominately White (92%), 4% were Asian, 1% was Black, and 3% were of other or mixed ethnicity. Six individuals were excluded from Study 2 due to missing data or for failing to complete the PODS according to standardized instructions. There was no overlap in participants included in Samples 1 and 2.

Materials

Perceptions of Drinking Scale (Sample 1 and Sample 2)

The Perceptions of Drinking Scale (PODS) was administered for the purposes of measure validation and in order to assess alcohol use-related shame and guilt (see Appendix P). The 17-item PODS measure comprises four subscales: Shame, Guilt, Unconcern, and Externalization of Blame. The Shame subscale seeks to assess alcohol use-related shame whereby the individual attributes transgressive alcohol use to core self deficiencies (e.g., *"Because of my drinking I feel like I'm a failure"*). The Guilt subscale aims to assess experiences of alcohol-related guilt, whereby the individual's alcohol use or behaviour while drinking is perceived as transgressive and remains the focus of negative evaluation. An example item from the Guilt subscale *"I feel bad about some of the things I've done while drinking"*. The Unconcern subscale aims to assess general indifference or unconcern related to current alcohol use (e.g. *"I've got nothing to gain by drinking less"*). Finally, the Externalization of Blame subscale seeks to assess the tendency to attribute drinking behaviour to peer influence, with an example item: *"If my friends drank less, so would I"*. While reflecting upon their alcohol use over the past several months, respondents are requested to indicate the degree to which their experience is consistent with each of the item statements using a 5-point Likert scale ranging from 1 ("*Strongly Disagree*") to 5 ("*Strongly Agree*").

Readiness to Change Questionnaire (Sample 2)

To assess participants' readiness to change drinking behaviour, the alcohol-specific 12-item *Readiness to Change Questionnaire* (RTCQ; Rollnick et al., 1992) was used (see Appendix Q). Developed to provide an assessment of

individual's current standing according to the Transtheoretical Model of the Behaviour change (Prochaska & DiClemente, 1992), the RTCQ comprises three subscales: Precontemplation, Contemplation, and Action. Four items each assess the Precontemplation (e.g., *"It's a waste of time thinking about my drinking"*), Contemplation (e.g., *"I am at the stage where I should think about drinking less alcohol"*) and Action stages (e.g., *"I am actually changing my drinking habits right now"*). Responses to item statements are made using a 5-point Likert scale ranging from 1 ("*Strongly Disagree*") to 5 ("*Strongly Agree*").

The RTCQ has demonstrated adequate reliability and validity (Carey, Purnine, Maisto, & Carey, 1999). Rollnick et al. (1992) report coefficient alphas raging between .73 to .85 for the three subscales and test-retest reliabilities ranging .78 to .86 over a 1 – 2 day period. Demonstrating predictive validity, Heather, Rollnick, and Bell (1993) found that the RTCQ was able to predict 8-week and 6-month changes in alcohol consumption, particularly among those classified as being in the Action stage. Using data from Sample 2, Cronbach's alphas were .76, .83, and .88 for the Precontemplation, Contemplation, and Action subscales, respectively.

Readiness to Change Ruler (Sample 2)

LaBrie et al.'s (2005) alcohol use-related Readiness to Change Ruler was used to provide an additional measure of readiness to change. Developed as an efficient means of assessing the readiness to change construct, the Readiness to Change Ruler is a single item measure and participants are required to respond to the ruler according to how they feel about their drinking right now (see Appendix R). Scores on the ruler range from 0 ("*Never think about my drinking*"), to 3

("*Sometimes I think about drinking less*"), to 5 ("*I have decided to drink less*"), to 7 ("*I am already trying to cut back on my drinking*"), and finally, to 10 ("*My drinking has changed. I now drink less than before*."). Using data from Sample 2, Labrie et al.'s (2005) Readiness to Change Ruler correlated -.48, .54, and .78, with the RTCQ's (Rollnick et al., 1992) Precontemplation, Contemplation, and Action subscales, respectively (all *p*s <.001). In the present study, thirty-three individuals (8% of participants) failed to complete the Readiness to Change Ruler item.

Alcohol Use Identification Disorder Test (Sample 1 and Sample 2)

The 10-item *Alcohol Use Disorders Identification Test* (AUDIT: Saunders et al., 1993) was used to identify alcohol use disorder symptomatology. A detailed discussion of this widely used measured developed by the World Health Organization including example items, response options, and psychometric properties can be found in Chapter 6.

Young Adult Alcohol Consequences Questionnaire (Sample 1 and Sample 2)

Negative alcohol use-related consequences were measured using the *Young Adult Alcohol Consequences Questionnaire* (YAACQ; Read et al., 2006). An in-depth discussion of the 48-item YAACQ, including instruction set, response format, example items, and psychometric properties can also be found in Chapter 6.

Depression Anxiety and Stress Scales – 21 (Sample 2)

The *Depression Anxiety and Stress Scales 21-item version* (DASS21: Lovibond & Lovibond, 1995) were used so as to gain an assessment of depression and anxiety symptomotology (see Appendix S). The DASS21 comprises three 7-item subscales and yields an assessment of Depression, Anxiety, and Stress phenomenology. Participants are required to indicate their level of agreement with the items as they applied to them over the past week period using a 4-point Likert scale with 0 = "*Did not apply to me at all*" and 3 = "*Applied to me very much, or most of the time*". An example item from the Depression subscale is *"I felt that I wasn't worth much as a person"* while an example item from the Anxiety subscale is *"I was worried about situations in which I might panic and make a fool of myself"*. For the Stress subscale, an example item is *"I found myself getting agitated"*.

The DASS21 is a widely used measure with sound psychometric properties (Antony, Bieling, Cox, Enns, & Swinson, 1998). Antony et al. (1998) report Cronbach's alphas for the DASS21 Depression, Anxiety, and Stress subscales as .94, .87, and .91 respectively. Using data from Sample 2, Cronbach's alphas for the DASS21 subscales were .77 for Anxiety, .89 for Depression, and .84 for Stress.

The COPE Inventory (Sample 2)

The COPE Inventory (Carver, Scheier, & Weintraub., 1989) was employed to assess individual differences in the manner in which individual's respond to stress evoking situations (see Appendix T). Used in order to help determine the convergent and discriminant validities of the PODS-Shame and

Guilt subscales, the COPE Inventory is a 60-item measure that assesses the propensity to employ 15 different coping strategies: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, Use of instrumental support, Behavioural disengagement, Venting, Positive reframing, Planning, Humor, Acceptance, and Religion. The subsequently developed Self-Blame coping strategy subscale from Carver's (1997) abbreviated version of the COPE was also employed in the present study.

In responding to the COPE Inventory, participants are required to indicate how they typically cope with difficult or stressful events in their lives and respond to each item using a 4-point Likert scale ranging between (1) "*I usually don't do this at all*" and (4) "*I usually do this a lot*". For the purposes of this study, the Behavioural Disengagement, Denial, and Self-blame scales were considered to be of particular interest and were scored, with all other subscales and their respective items serving as fillers. Example items from the Behavioural Disengagement and Denial subscales are *"I admit to myself that I can't deal with it, and quit trying"* and *"I pretend that it hasn't really happened",* respectively. An example item from the Self-Blame subscale is "*I criticize myself".* Carver et al. (1989) report internal consistencies of .63 for the Behavioural Disengagement subscale and .71 for the Denial subscale, while the internal consistency of the Self Blame subscale is reported as .69 (Carver, 1997). Using data from Sample 2, Cronbach's alphas for the COPE subscales employed were .69 for Behavioural Disengagement, .78 for Denial, and .74 Self-blame. These Cronbach's alphas are relatively good considering that the Behavioural Disengagement and Denial subscales of the COPE are brief with four items each, while the Self Blame subscale contains only two items.

Attitudes towards Self-Revised (Sample 2)

The Attitudes towards Self-Revised scale (ATS-R; Carver, La Voie, Kuhl, & Ganellen, 1988) was used to assess the tendency to generalize single failures or negative outcomes to an individual's broader sense of self-worth (see Appendix U). The 10-item, three subscale ATS-R also assesses the tendency to hold overly high standards and the tendency engage in self-criticism subsequent to underperformance. For the purposes of this study, the 4-item Generalization subscale was considered to be of particular interest and was scored, with the two other subscales and their respective items serving as fillers. An example item from the Generalization subscale is *"A single failure can change me from feeling OK to seeing only the bad in myself"* and responses are made using a five-point scale with 1 = "*I disagree a lot*" and 5 = "*I agree a lot*". Hayes, Harris and Carver (2004) report a Cronbach's alpha of .85 for the Generalization subscale. Using data from Sample 2, Cronbach's alpha for Generalization subscale was equally satisfactory at .80.

Test of Self-Conscious Affect-3: Short Version (Sample 2)

The dispositional tendency to experience shame and guilt was assessed using the Test of Self-Conscious Affect-3 (TOSCA-3; Tangney et al., 2000). An in-depth discussion of the scenario-based TOSCA-3, including instruction set, response format, example scenario, and psychometric properties can be found in Chapter 6.

Procedure

Approval to conduct Study 3 was obtained from The Tasmanian Social Sciences Human Research Ethics Committee (SS HREC) in 2007. Data was collected using questionnaire batteries presented in small booklets that were circulated in the years of 2008 and 2009 at the University of Tasmania, Australia, and local surrounds. The booklet used to gain data for Sample 1 contained the Perceptions of Drinking Scale (PODS) along with the AUDIT, the YAACQ, and a demographics questionnaire. The booklet used to gain data for Sample 2 contained the PODS along with the Depression Anxiety and Stress Scales-21 item version (Lovibond & Lovibond, 1995), several subscales from the COPE inventory (Carver et al., 1989), the Self-Blame subscale from the Brief COPE inventory (Carver, 1997), the Generalization subscale from the Attitudes Towards Self-Revised (Carver et al. 1988), the Readiness to Change Questionnaire (Rollnick et al., 1992), LaBrie et al.'s (2005) Readiness to Change Ruler, and the TOSCA-3 (Tangney et al., 2000). This booklet also contained the Alcohol Use Disorders Identification Test (AUDIT: Saunders et al., 1993), the Young Adult Alcohol Consequences Questionnaire (YAACQ: Read et al., 2006), and a demographics questionnaire. Participants were instructed to complete the booklet at a time that was convenient and to return it to the investigator in a provided sealed envelope. To assess test–retest reliability, a subset of participants was requested to complete the PODS a second time, between one to seven days later. Upon returning their questionnaire, participants were debriefed as to the aims of the study.

Data Analysis

Exploratory factor analysis (EFA) was conducted using the SPSS 17.0 (SPSS Inc., 2009) software program. Factors were extracted using a maximum likelihood extraction to enhance the generealizability of the model and an oblique (oblimin) rotation was employed to permit correlations between factors. The maximum number of possible factors for extraction was determined using parallel analysis based on procedures described by O'Connor (2000), whereby factors were retained if they produced eigenvalues significantly larger than those that would be identified from a random dataset of the same size (based on comparisons with the 95% confidence interval from 1000 parallel datasets generated from column-wise random shuffling of the values in the raw data matrix using Castellan's (1992) algorithm, which preserves the distributional properties of the data). The number of factors retained was determined via the scree test (Cattell, 1966), the criterion of eigenvalues greater than one (Kaiser, 1958), and practical interpretability.

Confirmatory factor analysis (CFA) was conducted using MPlus 6.00 (Muthén & Muthén, 2010) with a weighted least squares mean and variance adjusted (WLSMV) estimator used for all analyses. A WLSMV estimator was employed as simulation studies demonstrate that this estimation method provides robust estimates of model coefficients for ordered categorical and continuous data, even in instances where data distribution deviates from multivariate normality (Muthén & Muthén, 2010). Absolute model fit was determined using the chi-squared test statistic with a non significant outcome indicating good absolute model fit. It must be noted the chi-squared statistic is highly sensitive to sample size and in larger samples, this sensitivity often leads to a highly

significant result and a rejection of the model (Bentler & Bonett, 1980; Hu & Bentler, 1999). In light of this notable limitation of the chi-squared test statistic, several practical fit indices were also employed. These were the root mean square error of approximation (RMSEA; Steiger, 1990), the comparative fit index (CFI; Bentler, 1990), and the Tucker-Lewis index (TLI; Tucker & Lewis, 1973). The RMSEA provides an assessment of model fit in relation to the population covariance matrix and takes into account the complexity of the tested model. RMSEA values <.05 are considered to indicate a good fit, 0.5 to .08 indicate moderate fit, .08 to .10 suggest marginal fit, and values >.10 indicate poor fit (Browne & Cudeck, 1993; Hu & Bentler, 1999). Both the CFI and TLI are comparative fit indices which provide measures of model fit relative to the independent baseline model. For both the CFI and TLI, values ranging between .90 and .95 are considered to indicate acceptable fit, while values greater than .95 are indicative of good fit (Browne & Cudeck, 1993; Hu & Bentler, 1999).

Results

Exploratory Factor Analysis

Data from Sample 1 were subject to an exploratory factor analyses (EFA) with a maximum likelihood extraction to determine whether the 17 PODS items represented the intended alcohol use-related shame, alcohol use-related guilt, externalization of blame, and unconcern dimensions (see Table 19). As a number of previously developed measures of shame and guilt have found moderate positive correlations between the two constructs (e.g., Tangney et al., 2000; Thompson et al., 2003; Thompson et al., 2008), an oblique rotation was used to permit correlations between factors. Indicating that the data was suitable for

factor analysis, The Kaiser-Meyer-Oklin value (KMO: Kaiser, 1970) was .87, and all KMO values for individual items were .63 or greater, exceeding acceptable limits for analysis. Providing further support for the factorability of the dataset, Bartlett's (1954) test of sphericity reached statistical significance, χ^2 (136) = 2387.67, $p < .001$, and an inspection of the correlation matrix revealed the presence of numerous correlation coefficients greater than .30. Parallel analysis (Horn, 1965) suggested that a maximum of four factors could reliably be extracted from the data. The number of factors retained was determined by Kaiser's (1958) criterion (i.e., the number of eigenvalues greater than 1) and Cattell's (1966) scree test (see Figure 1). Factor loadings were considered salient if they were greater than .40 (Stevens, 1992).

Table 19

Exploratory Factor Analysis for the 17 Items of the Perceptions of Drinking Scale (PODS) With Loadings on the Factor to Which Each Item Pertains (Sample 1)

Item	Shame	Blame	Guilt	Unconcern
5. When I think about my drinking I feel that I don't measure up as a person	**.90**	.02	.02	.04
12. When I reflect on my drinking I feel as though I can't do anything right	**.80**	-.03	-.06	-.04
17. I feel alone and isolated when I think about my drinking	**.78**	-.01	.03	.03
3. I feel worthless when I reflect on my drinking	**.76**	.05	-.02	-.03
15. Because of my drinking I feel like I'm a failure	**.66**	-.02	-.03	.00
13. I drink as much as I do because of my friends	-.02	**.86**	.04	.06
6. My level of drinking is heavily influenced by the people I drink with	.01	**.72**	-.08	.04
2. If my friends drank less, so would I	.00	**.68**	.07	-.12
10. I wouldn't drink as much if it weren't for the influence of certain people	.02	**.57**	-.07	.04
1. I feel bad about some of the things I've done while drinking	-.12	-.02	**-.95**	.05
11. I have made some poor decisions with regard to drinking	-.05	.06	**-.83**	-.04
7. I feel a need to make amends for some of things I have done while drinking	.13	-.01	**-.70**	-.02
16. I need to improve my behaviour while I'm drinking	.21	.02	**-.58**	-.03
9. I feel bad because my drinking may have had a negative impact on others	.18	.06	**-.58**	-.07
4. There would be no benefit in cutting down my drinking	-.02	.03	.15	**.79**
8. I feel that drinking less than I currently do would be pointless	.01	-.04	-.01	**.66**
14. I've got nothing to gain by drinking less	.00	.02	-.05	**.50**

Note. N = 293. Items are listed in order of strength of loading. Loadings > .40 are considered to be salient.

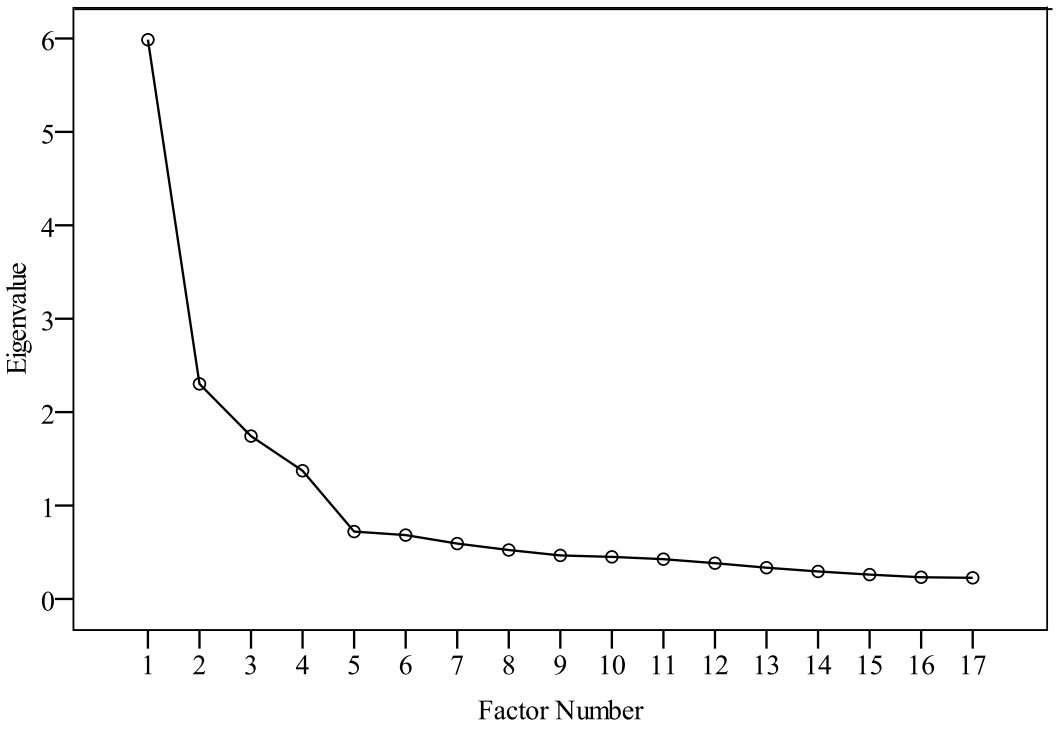

Figure 1. Scree test of eigenvalues derived from the EFA of 17 item PODS data

According to Kaiser's criterion and as can be seen in Figure 1, the data were best described by four interpretable factors accounting for 57.32% of the overall variance in the PODS item scores. The first four eigenvalues were 5.99, 2.30, 1.74, and 1.37, respectively. The first factor accounted for 32.97% of the variability in item responses and contained items seemingly most relevant to alcohol use-related shame (e.g., *"Because of my drinking I feel like I'm a failure"* and *"I feel worthless when I reflect on my drinking"*). The second factor accounted for an additional 10.91% of the variance in PODS data and contained items appearing to be most relevant to alcohol use-related externalization of blame (e.g., *"I drink as much as I do because of my friends"* and *"If my friends drank less, so would I"*). The third factor accounted for an additional 6.34% of

variability in item responses and contained items seemingly most relevant to alcohol use-related guilt (e.g., *"I feel bad about some of the things I've done while drinking"* and *"I have made some poor decisions with regard to drinking"*). The fourth factor accounted for an additional 7.10% of the variance in PODS data and contained items appearing most relevant to unconcern or indifference towards current alcohol use (e.g., *"There would be no benefit in cutting down my drinking"* and *"I've got nothing to gain by drinking less"*).

The obliquely rotated solution was of approximate simple structure, with all variables loading substantially (i.e., > .40) on only one factor. The 17 PODS items and their respective factor loadings are shown in Table 19.

Consistent with previous research indicating that measures of shame and guilt tend to moderately correlate with each other (e.g., Tangney et al., 2000; Thompson et al., 2008), the PODS-Shame and Guilt factors were moderately correlated (r = -.60, p < .001). In explaining the negative relationship between the PODS-Shame and Guilt subscales found in the EFA, it is suspected that this was due to the influence of the inclusion of PODS-Unconcern and PODS-Blame factors in the four factor EFA solution. Indeed, when the PODS-Unconcern and PODS-Blame items were removed from the EFA, the relationship between the PODS-Shame and PODS-Guilt factors was positive (but still of the same magnitude, r = .61). Descriptive statistics and correlations among the observed PODS-Shame, PODS-Guilt, PODS-Blame, and PODS-Unconcern factors can be found in Table 20.

Table 20

Descriptive Statistics and Correlations Among Observed Factors of the 17 Item PODS Measure (Sample 1)

						Factor correlations			
PODS subscale	*n* items	Possible Range	*M*	*SD*	Observed Range	1	2	3	4
1. Shame	5	5-25	8.05	3.36	5-23	-	.19**	-.60**	-.21**
2. Externalization of Blame	4	4-20	10.90	3.80	4-20		-	-.33**	-.11†
3. Guilt	5	5-25	12.29	5.06	5-25			-	.18**
4. Unconcern	3	3-15	8.00	2.60	3-15				-

Note. $N = 293$.* $p < .05$. ** $p < .01$. † = .06. PODS = Perceptions of Drinking Scale.

*Confirmatory Factor Ana*lysis

In order to provide a further test of the factor structure of the newly developed PODS, the 17-item four factor solution ascertained using EFA was subsequently subject to a confirmatory factor analysis (CFA) in an independent sample (Sample 2). This model was fit using MPLUS 6.00 (Muthén & Muthén, 2010) using WLSMV estimation.

In the hypothesized model, the five alcohol use-related shame responses were specified as indicators of the PODS-Shame latent variable while the five alcohol use-related guilt responses were specified as indicators of the PODS-Guilt latent variable. The three alcohol use-related unconcern items and four alcohol use-related externalization of blame items were specified as indicators of the PODS-Unconcern and PODS-Blame latent variables, respectively. The four specified latent variables were permitted to correlate with each other.

The hypothesized four-factor model provided an adequate to good fit to the PODS data: χ^2 (113, N = 429) = 215.10, p < .001; RMSEA = .046; CFI =.99; TLI =.99. While the significant χ^2 result indicated a poor absolute fit for the model, results from the practical fit indices were promising. Specifically, the hypothesized model demonstrated universal good fit according to RMSEA, CFI, and TLI indices. As can be seen in Table 21, all standardized loadings for this model exceeded .50 and all were significant at p < .01. The item-latent variable (R^2) loadings for the PODS-Guilt and PODS-Shame subscales were particularly strong, with all exceeding .50.

Table 21

Standardized Loadings and Standard Errors for the Hypothesised Four-Factor Perceptions of Drinking Scale (PODS) (Sample 2)

Item	Shame		Blame		Guilt		Unconcern	
5. When I think about my drinking I feel that I don't measure up as a person	**.90**	(.02)						
12. When I reflect on my drinking I feel as though I can't do anything right	**.90**	(.02)						
3. I feel worthless when I reflect on my drinking	**.90**	(.02)						
17. I feel alone and isolated when I think about my drinking	**.87**	(.02)						
15. Because of my drinking I feel like I'm a failure	**.82**	(.03)						
13. I drink as much as I do because of my friends			**.85**	(.02)				
6. My level of drinking is heavily influenced by the people I drink with			**.87**	(.02)				
2. If my friends drank less, so would I			**.74**	(.03)				
10. I wouldn't drink as much if it weren't for the influence of certain people			**.72**	(.03)				
1. I feel bad about some of the things I've done while drinking					**.88**	(.02)		
11. I have made some poor decisions with regard to drinking					**.75**	(.03)		
7. I feel a need to make amends for some of things I have done while drinking					**.86**	(.02)		
9. I feel bad because my drinking may have had a negative impact on others					**.81**	(.03)		
16. I need to improve my behaviour while I'm drinking					**.84**	(.02)		
4. There would be no benefit in cutting down my drinking							**.92**	(.04)
8. I feel that drinking less than I currently do would be pointless							**.72**	(.03)
14. I've got nothing to gain by drinking less							**.54**	(.04)

Note. $N = 429$. All factor loadings are significant at $p < .01$.

Taken together, model fit using Sample 2 data provided adequate to good support for the 17-item, four factor structure of the PODS. As expected, the alcohol use-related shame and alcohol use-related guilt latent factors correlated significantly ($r = .71$, $p < .001$). Descriptive statistics and correlations among the four latent factors for Sample 2 PODS data can be found in Table 22.

Table 22

Descriptive Statistics and Correlations Among Latent PODS Factors (Sample 2)

						Factor correlations			
PODS subscale	*n* items	Possible Range	*M*	*SD*	Observed Range	1	2	3	4
1. Shame	5	5-25	7.59	3.05	5-21	-	.37**	.71**	-.16**
2. Externalization of Blame	4	4-20	10.28	3.93	4-19		-	.55**	-.16**
3. Guilt	5	5-25	11.73	4.91	5-25			-	-.30**
4. Unconcern	3	3-15	8.14	2.71	3-15				-

Note. $N = 429$. PODS = Perceptions Of Drinking Scale. Means and standard deviations are based on subscale scores calculated from the observed variables. .* $p < .05$. ** $p < .01$.

As the PODS-Shame and Guilt factors were highly correlated as latent variables in the four factor CFA model ($r = .71$, $p < .001$), it was deemed important to establish whether or not a single higher-order alcohol use-related shame *and* guilt factor provided a better fit to the data than a two-factor model with separate shame and guilt factors. This was determined using the chi-square difference test for two independent CFA (measurement) models created using Sample 2 data. In the hypothesised one-factor model, the five shame and five guilt items of the PODS were specified as indicators of a single latent variable. In the hypothesized two-factor model, the five shame items were specified as indicators of the PODS-Shame latent variable and the five guilt items were specified as indicators of the PODS-Guilt latent variable. These factors were permitted to correlate with each other. The hypothesised one-factor model demonstrated a poor to adequate fit, χ^2 (35, $N = 429$) = 609.80, $p < .001$; RMSEA = .20; CFI =.93; TLI =.92. In contrast, the hypothesised two-factor model demonstrated a good fit, χ^2 (34, $N = 429$) = 64.12, $p = .001$; RMSEA = .045; CFI = .99; TLI = .99. The improved statistical fit for the 2-fator model was significant, $\Delta\chi^2$ (Δd.f. = 1) = 131.01, $p < .001$, suggesting the data is better described by separate PODS-Shame and Guilt factors.

Unidimensionality of the PODS Shame and Guilt Subscales

Having established that alcohol use-related shame and guilt could be differentiated through EFA and CFA based procedures, two independent one-factor CFA (measurement) models were run in order to assess the unidimensionality of the shame and guilt subscales of the PODS. Using data from Sample 2, all models were produced using Mplus 6.0 (Muthén & Muthén, 2010) with WLSMV estimation. In the hypothesised PODS-Shame model, all shame items of the PODS were specified as indicators of a single latent variable. The

same approach was taken with the hypothesised PODS-Guilt model, with all guilt items of the PODS specified as indicators of a single latent variable. Indicating that the PODS-Shame subscale has satisfactory unidimensionality, the hypothesised model showed moderate to good fit: χ^2 (5, N = 429) = 13.69, p = .02; RMSEA = .06; CFI =.99; TLI =.99. The hypothesised model for the PODS-Guilt subscale also demonstrated moderate to good fit, χ^2 (5, N = 429) = 11.28, p = .05; RMSEA = .05; CFI =.99; TLI =.99, indicating that this measure is also satisfactorily unidimensional.

Internal and Test-Retest Reliability

Cronbach's alphas were calculated to determine the respective internal consistencies of the four PODS subscales. Using data from Sample 1, Cronbach's alpha for the PODS-Shame subscale was .90, while Cronbach's alpha for the PODS-Guilt subscale was .87. Cronbach's alphas for the PODS-Blame and PODS-Unconcern subscales were .85 and .75, respectively. For Sample 2, Cronbach's alpha for the PODS-Shame and PODS-Guilt subscales were both .89. Cronbach's alphas for the PODS-Blame and PODS-Unconcern subscales were .69 and .80, respectively. The slightly lower, but still acceptable, internal consistency of the PODS-Unconcern subscale is perhaps not unexpected given that this measure contains only three items and that coefficient alpha values are highly influenced by the number of items (Green, Lissitz, & Mulaik, 1977). Taken together, all four PODS subscales appear to demonstrate satisfactory internal consistency.

In order to provide an assessment of the temporal stability of the PODS, 66 individuals completed the PODS on two separate occasions, ranging between

1 and 10 days apart (M = 3.98 SD = 2.08). Suggesting that all four subscales also have satisfactory temporal stability, test-retest reliabilities were .90 for PODS-Shame, .96 for PODS-Guilt, .80 for PODS-Unconcern, and .90 for PODS-Blame (all ps < .001).

Gender Differences

As gender differences in mean levels of self-reported shame and guilt-proneness have been observed in past research (Tangney & Dearing, 2002), a series of independent samples t-tests comparing observed scale scores for men and women were conducted on each of the four PODS subscales. Using Sample 1 data for all analyses, no significant gender difference was found in mean PODS-Guilt scores (women: M = 12.12, SD = 5.07; men: M = 12.75, SD = 5.04; t[291] = 0.95, p = .34, Hedge's g = .12) and similarly, no significant gender difference was found in mean PODS-Shame scores (women: M = 7.91, SD = 3.29; men: M = 8.43, SD = 3.51; t[291] = 1.18, p = .24, Hedge's g = .17). There was also no significant gender difference found in PODS-Unconcern scores (women: M = 7.97, SD = 2.35; men: M = 8.09, SD = 3.09; t[291] = .36, p = .72, Hedge's g = .05). However, a significant gender difference was apparent in mean PODS-Blame scores (t[291] = 2.13, p = .03), with men (M = 11.66, SD = 3.89) scoring higher on this subscale than women (M = 10.61, SD = 3.73), representing a small sized effect (Hedge's g = .28).

Examining the Convergent, Discriminant, and Concurrent Validity of the Shame and Guilt Subscales of the PODS

Shame and guilt are both self-conscious emotions of negative valence that involve internal attributions for transgressions (Tangney et al., 2007). Due to these similarities and overlapping phenomenology, it is common for measures of shame and guilt to correlate quite substantially (e.g., Tangney et al., 1992, 1998). Consistent in terms of direction and magnitude of the correlations typically found between the TOSCA-Shame and TOSCA-Guilt subscales, the PODS-Shame and PODS-Guilt subscales of the PODS correlated positively and moderately in both Sample 1 (r =.59, p < .001, n =293) and Sample 2 (r = .54, p < .001, n = 429). For this analysis, PODS-Shame and PODS-Guilt subscale scores were attained by summing scores for the five shame and five guilt items, respectively.

In light of the substantial and frequently observed correlations between measures of shame and guilt, Tangney and Dearing (2002) recommend partialing out shared variance between shame and guilt to isolate "shame-free guilt" and "guilt-free shame" when examining relationships between shame, guilt, and other constructs (see also Paulhus et al., 2004). As compared to raw scores, Tangney and colleagues have repeatedly demonstrated that shame and guilt residuals each have functionally distinct and unique variance that will often serve as more substantial predictors of target variables (for a review, see Tangney & Dearing, 2002). Thus, in keeping with the analysis strategy adopted in Chapters 6 and 7, part-correlation analysis will be employed when exploring relationships between alcohol use-related shame and guilt, and other constructs of interest assessed in the present study.

Means and Standard Deviations

Descriptive statistics for the DASS21, COPE subscales, ATS-R Generalization subscale, TOSCA-3, RTCQ, and the Readiness to Change Ruler for Sample 2 are presented in Table 23. Table 24 shows descriptive statistics for the AUDIT and the YAACQ for Samples 1 and 2.

Table 23

Descriptive Statistics for the Depression Anxiety and Stress Scales-21, COPE, Attitudes Towards Self-Revised, Test of Self-Conscious Affect-3, Readiness to Change Questionnaire, and the Readiness to Change Ruler for Sample 2

Measure	# of items	Possible Range	*n*	*M*	*SD*	Observed Range
DASS21						
Stress	7	0-21	428	4.81	3.92	0-19
Anxiety	7	0-21	428	2.28	2.76	0-17
Depression	7	0-21	428	3.06	3.77	0-20
Total	21	0-63	428	10.15	9.21	0-51
COPE						
Behavioural Disengagement	4	4-16	427	6.44	2.18	4-14
Denial	4	4-16	428	5.89	2.31	4-16
Self-Blame	2	2-8	428	5.11	1.69	2-8
ATS-R						
Generalization	4	4-20	426	12.17	4.01	4-20
TOSCA-3						
Shame	11	11-55	418	33.54	7.78	12-51
Guilt	11	11-55	418	46.02	4.84	28-55
RTCQ						
Precontemplation	4	4-20	427	13.69	3.38	4-20
Contemplation	4	4-20	427	9.97	3.74	4-20
Action	4	4-20	427	9.90	3.97	4-20

Table 23 *(continued)*

Measure	# of items	Possible Range	*n*	*M*	*SD*	Observed Range
Readiness to Change Ruler						
Total	1	1-10	396	3.70	2.98	1-10

Note. $N = 396 - 428$. Increasing scores on the DASS21 and subscales indicate greater severity of experienced symptomatology. Increasing scores on the COPE subscales indicate greater reliance on each respective coping strategy. Increasing scores on the ATS-R generalization indicate greater propensity to generalize negative events to the global self. Increasing scores on the TOSCA-3 subscales indicate greater levels of shame or guilt-proneness. Increasing scores on the RTCQ subscales indicate greater agreement with beliefs associated with each stage of change. Higher scores on the Readiness to Change Ruler indicate greater overall readiness to change.

Table 24

Descriptive Statistics for the Alcohol Use Disorders Identification Test and the Young Adult Alcohol Consequences Questionnaire for Sample 1 and Sample 2

			Sample 1				Sample 2			
Measure	# of items	Possible Range	*n*	Mean	*SD*	Observed Range	*n*	Mean	*SD*	Observed Range
AUDIT										
Quantity and Frequency	3	0-12	293	5.47	2.37	1-11	428	5.40	2.46	0-12
Dependence Indicators	3	0-12	293	1.29	1.64	0-8	427	1.15	1.46	0-8
Adverse Consequences	4	0-16	293	2.87	3.05	0-14	427	2.76	3.04	0-14
Total	12	0-40	293	9.63	5.93	1-32	427	9.31	5.88	0-29
YAACQ										
Social-Interpersonal Cons	6	0-6	293	2.32	1.76	0-6	428	2.43	1.82	0-6
Impaired Control	6	0-6	293	1.78	1.75	0-6	429	1.68	1.69	0-6
Negative self-perception	4	0-4	293	.95	1.29	0-4	429	.91	1.31	0-4
Self-care Neglect	8	0-8	293	2.07	2.13	0-8	428	1.93	2.05	0-8
Risk Behaviours	8	0-8	293	1.80	1.96	0-8	429	1.62	1.85	0-8
Academic/Occupational	5	0-5	293	.88	1.20	0-5	429	.75	1.19	0-5
Physical Dependence	4	0-4	293	.51	.77	0-4	429	.42	.73	0-4
Blackout Drinking	7	0-7	293	3.26	2.26	0-7	429	2.93	2.15	0-7
Total	48	0-48	293	13.58	9.89	0-41	427	12.65	9.64	0-45

Note. Sample 1 $N = 293$. Sample 2 $N = 427$-429. Increasing scores on the AUDIT and subscales indicate greater likelihood of disordered alcohol use. Increasing scores on the YAACQ and subscales indicate the greater experience of negative alcohol use-related consequences.

Alcohol Use-Related Shame, Guilt, and Alcohol Use Disorders

Table 25 shows relationships between the PODS-Shame and Guilt subscales with the AUDIT and AUDIT subscales for Samples 1 and 2. Here it can be seen that large-magnitude positive relationships were found between shame-free alcohol use-related guilt with the quantity and frequency of alcohol use, dependence indicators, the experience of adverse consequences, and total scores on the AUDIT in both Samples 1 and 2. In contrast, guilt-free alcohol use-related shame was consistently unrelated to total scores on the AUDIT, the quantity and frequency of alcohol use, and the experience of adverse consequences in both samples. A significant, small-magnitude positive relationship between guilt-free alcohol use-related shame and dependence indicators was found in Sample 2, but this finding was not replicated in Sample 1.

Table 25

Relationships Between Alcohol Use-Related Shame and Guilt and the Alcohol Use Disorders Identification Test for Sample 1 and Sample 2

	Bivariate Correlations		Part Correlations	
Measure	PODS-Shame	PODS-Guilt	PODS-Shame	PODS-Guilt
AUDIT				
Quantity and Frequency				
Sample 1	.17**	.41**	-.10	.39**
Sample 2	.25**	.46**	.00	.40**
Dependence Indicators				
Sample 1	.33**	.50**	.05	.40**
Sample 2	.40**	.52**	.16**	.40**
Adverse Consequences				
Sample 1	.32**	.59**	-.03	.52**
Sample 2	.35**	.57**	.06	.48**
Total AUDIT				
Sample 1	.32**	.61**	-.05	.54**
Sample 2	.39**	.62**	.08	.53**

Note. * $p < .05$. ** $p < .01$. Sample 1 $N = 290$ - 293. Sample 2 $N = 424$ - 427.

Alcohol Use-Related Shame, Guilt, and the Experience of Negative Alcohol Use-Related Consequences

Relationships between the PODS-Shame and Guilt subscales with the YAACQ and YAACQ subscales for Samples 1 and 2 are presented in Table 26. As can be seen, shame-free alcohol use-related guilt was significantly and positively related with total YAACQ and all YAACQ subscales, across Samples 1 and 2. Most notably, large-magnitude positive relationships were found between shame-free alcohol use-related guilt with social and interpersonal consequences, black out drinking, and risky behaviours. In addition, positive relationships generally moderate in magnitude were found between shame-free alcohol use-related guilt with impaired control over drinking, negative self-perceptions, neglect of self-care, academic and occupational consequences, and physical dependence.

Table 26

Relationships Between Alcohol Use-Related Shame and Guilt and the Young Adult Alcohol Consequences Questionnaire (YAACQ) for Sample 1 and Sample 2

	Bivariate Correlations		Part Correlations	
Measure	PODS-Shame	PODS-Guilt	PODS-Shame	PODS-Guilt
YAACQ				
Social-Interpersonal				
Sample 1	.36**	.70**	-.09	.64**
Sample 2	.38**	.70**	.00	.63**
Impaired Control				
Sample 1	.52**	.52**	.31**	.32**
Sample 2	.48**	.57**	.25**	.42**
Negative Self-Perception				
Sample 1	.53**	.56**	.30**	.37**
Sample 2	.49**	.53**	.28**	.36**
Self-Care Neglect				
Sample 1	.38**	.52**	.10	.40**
Sample 2	.48**	.49**	.29**	.31**
Risk Behaviours				
Sample 1	.36**	.63**	-.02	.56**
Sample 2	.35**	.58**	.04	.50**
Academic/Occupational				
Sample 1	.36**	.46**	.12*	.33**
Sample 2	.38**	.46**	.18**	.33**
Physical Dependence				
Sample 1	.26**	.35**	.08	.25**
Sample 2	.30**	.39**	.12*	.28**
Blackout Drinking				
Sample 1	.29**	.61**	-.10	.56**
Sample 2	.31**	.60**	-.02	.55**
Total YAACQ				
Sample 1	.51**	.75**	.13*	.65**
Sample 2	.53**	.74**	.23**	.64**

Note. * $p < .05$. ** $p < .01$. Sample 1 $N = 290$ - 293. Sample 2 $N = 424$ - 429.

As can also be seen in Table 26, small-magnitude positive relationships were found between guilt-free alcohol use-related shame and total YAACQ in both Samples 1 and 2. With regards to relationships with YAACQ subscales, medium-magnitude positive relationships were found guilt-free alcohol use-related shame and negative self-perceptions due to drinking and impaired control over drinking across samples. Guilt-free alcohol use-related shame was also positively related to academic and occupational consequences across samples, but these relationships were small in magnitude A medium-magnitude positive correlation was also found between guilt-free alcohol use-related shame and self-care neglect, but only in Sample 2. A small-magnitude positive relationship between guilt-free alcohol use-related shame and physical dependence was also evident in Sample 2. Guilt-free alcohol use-related shame was consistently *unrelated* to social and interpersonal consequences, risk taking behaviours, and blackout drinking across both samples.

Alcohol Use-Related Shame, Guilt, and Measures of Discriminant and Convergent Validity

Relationships between the PODS-Shame and Guilt subscales with the DASS21, COPE subscales, ATS-R Generalization subscale, TOSCA-3, RTCQ, and the Readiness to Change Ruler for Sample 2 are presented in Table 27. As shown, medium-magnitude positive relationships were found between guilt-free alcohol use-related shame with anxiety, depression and total negative affect symptomatology (Total DASS21), while a small-magnitude positive relationship was found between guilt-free alcohol use-related shame and stress symptomatology. Guilt-free alcohol use-related shame was also positively related

to the use of behavioural disengagement, denial, and self-blame based coping strategies, with these relationships small to medium in magnitude. A small-magnitude positive relationship was found between guilt-free alcohol use-related shame and the tendency to generalize failures to core self-deficiencies, while a small-magnitude positive trend was evident between guilt-free alcohol use-related shame and generalized shame-proneness. With regards to readiness to change drinking behaviour, a small-magnitude negative relationship was found between guilt-free alcohol use-related shame and precontemplation and a medium-magnitude positive relationship was found between guilt-free alcohol use-related shame and the contemplation stage of change. While a significant, albeit small-magnitude, positive correlation was found between guilt-free alcohol use-related shame and the action-related change as assessed by the RTCQ, guilt-free alcohol use-related shame was unrelated to readiness to change as assessed by the Readiness to Change Ruler.

Table 27

Relationships Between the PODS Shame and Guilt Subscales with Measures of Convergent and Discriminant Validity (Sample 2)

	Bivariate Correlations		Part Correlations	
Validation Constructs	PODS-Shame	PODS-Guilt	PODS-Shame	PODS-Guilt
DASS21				
Stress	.18**	.18**	.10*	.10*
Anxiety	.31**	.20**	.24**	.05
Depression	.37**	.23**	.30**	.04
Total	.32**	.23**	.24**	.07
COPE				
Behavioural Disengagement	.29**	.18**	.24**	.02
Denial	.29**	.21**	.22**	.06
Self-Blame	.17**	.07	.15*	-.02
ATS-R				
Generalization	.26**	.19**	.19**	.06
TOSCA-3				
Shame	.10*	.04	.10†	-.02
Guilt	-.16**	-.11*	.-12*	-.03
RTCQ				
Precontemplation	-.36**	-.45**	-.15**	-.32**
Contemplation	.53**	.65**	.28**	.51**
Action	.34**	.48**	.10**	.38**
Readiness to Change Ruler				
Total	.28**	.47**	.03	.40**

Note. N = 396 - 429. * $p < .05$. ** $p < .01$. † $p = .06$. PODS = Perceptions Of Drinking Scale; DASS21 = Depression Stress and Anxiety Scales; ATS-R = Attitudes Towards Self - Revised; TOSCA-3 = Test Of Self Conscious Affect-3; RTCQ = Readiness To Change Questionnaire. All scales are scored in such a way that higher scores relate to greater severity or amount of each trait or behaviour. Raw TOSCA shame and guilt scores were employed in the examination of their respective relationships with the PODS shame and guilt subscales.

In contrast, shame-free alcohol use-related guilt was unrelated to measures of negative affect, with the exception of a small-magnitude positive relation with stress symptomatology. Shame-free alcohol use-related guilt was also unrelated to the tendency to use denial, behavioural disengagement, and self-

blame coping strategies, as well as generalized guilt-proneness and the tendency to generalize failures to core self-deficiencies. With regards to measures of readiness to change drinking behaviour, a medium-magnitude negative relationship was found between shame-free alcohol use-related guilt and precontemplation, while large-magnitude positive relationships were found between shame-free alcohol use-related guilt with the contemplation and action stages of change. Shame-free alcohol use-related guilt was also significantly and positively related to total readiness to change as assessed by the Readiness to Change Ruler, with this relationship large in magnitude.

Alcohol Use-Related Consequences and Alcohol Use-Related Shame and Guilt as Predictors of the Contemplation and Action Stages of Readiness to Change

While alcohol use-related guilt, and to a lesser degree alcohol use-related shame, both emerged as positive correlates of the contemplation and action stages of readiness to change drinking behaviour, this analysis failed to take into consideration the previous experience of negative alcohol use-related consequences as an additional precursor for readiness to change. In Sample 2, the experience of alcohol use-related consequences was positively and significantly related to the contemplation ($r = .68$, $p < .001$, $n = 425$) and action stages ($r = .42$, $p < .001$, $n = 425$) of behaviour change as measured by the RTCQ. Thus, a relatively conservative test of the convergent validity of the PODS-Guilt subscale would be to determine whether experiences of alcohol use-related guilt add to the understanding of behaviour change contemplation and action, over and above the

variance explained by alcohol use-related shame and the experience of negative alcohol use-related consequences.

To determine whether alcohol use-related guilt predicts *contemplation* of behaviour change over and above the experience of negative alcohol-related consequences and alcohol use-related shame, a hierarchical multiple regression analysis was performed predicting RTCQ-Contemplation from YAACQ-Total and PODS-Shame and Guilt. In this analysis, in which RTCQ-Contemplation served as the predicted variable, YAACQ-Total was forced into the regression equation in block one, followed by PODS-Shame which was forced into the equation in block two. PODS-Guilt was subsequently forced into the equation in block three.

Table 28 shows that the experience of alcohol-related consequences accounted for a significant portion of variance in contemplation of drinking behaviour change (47% of the variance in RTCQ-Contemplation). As expected, YAACQ-Total was a significant predictor of RTCQ-Contemplation ($p <$. 001). PODS-Shame was then forced into the regression equation after YAACQ-Total, with the change in R^2 associated with the entry of this variable significant ($p <$ .001). In predicting RTCQ-Contemplation, the PODS-Shame variable accounted for additional 4% of variance, over and above that explained by YAACQ-Total. Finally, PODS-Guilt was forced into the regression equation after YAACQ-Total and PODS-Shame, with the change in R^2 associated with the input of the PODS-Guilt variable significant ($p <$.05). PODS-Guilt accounted for an additional 3% of the variance in RTCQ-Contemplation, over and above that explained by YAACQ-Total and PODS-Shame. In block three of the regression

equation, YAACQ-Total, PODS-Shame, and PODS-Guilt all remained significant predictors of RTCQ-Contemplation (all *p*s < .001).

Table 28

Hierarchical Regression Analyses Predicting Contemplation (RTCQ) from Total Alcohol Use Consequences (YAACQ), PODS-Shame and PODS-Guilt (Sample 2)

		RTCQ-Contemplation			
	Variable	*b*	*SE b*	*β*	R^2 change
Step 1					.47**
	(Constant)	6.64	.22		
	Total Alcohol Use Consequences	.27	.01	.68**	
Step 2					.04**
	(Constant)	5.02	.34		
	Total Alcohol Use Consequences	.22	.02	.56**	
	PODS-Shame	.30	.05	.24**	
Step 3					.03*
	(Constant)	4.03	.39		
	Total Alcohol Use Consequences	.15	.02	.39**	
	PODS-Shame	.23	.05	.19**	
	PODS-Guilt	.20	.04	.26**	
	Total				.54**

Note. RTCQ = Readiness To Change Questionnaire; YAACQ = Young Adult Alcohol Consequences Questionnaire; PODS = Perceptions of Drinking Scale. *N* = 425. The regression coefficients are standardized betas.* $p < .05$. ** $p < .01$.

Using a similar approach to determine whether alcohol use-related guilt predicts *action*-related behaviour change over and above the experience of negative alcohol-related consequences and alcohol use-related shame, an additional hierarchical multiple regression analysis was performed. In this analysis, in which RTCQ-*Action* served as the predicted variable, YAACQ-Total was forced into the regression equation in block one, followed by PODS-Shame

which was forced into the equation in block two. PODS-Guilt was then forced into the equation in block three.

Table 29 shows that the experience of negative alcohol-related consequences accounted for a significant portion of variance in *action*-related drinking behaviour change, explaining 18% of the variance in RTCQ-*Action.* As expected, YAACQ-Total was a significant predictor of RTCQ-Action ($p <$. 001). PODS-Shame was then forced into the regression equation after YAACQ-Total, with the change in R^2 associated with the entry of this variable significant ($p <$.01). The PODS-Shame variable accounted for additional 2% of the variance in RTCQ-*Action*, over and above that explained by YAACQ-Total. Finally, PODS-Guilt was forced into the regression equation after YAACQ-Total and PODS-Shame, with the change in R^2 associated with the input of the PODS-Guilt variable significant ($p < .001$). The PODS-Guilt variable accounted for an additional 5% of the variance in RTCQ-Action, over and above that explained by YAACQ-Total and PODS-Shame. With PODS-Guilt entered into the regression equation, YAACQ-Total and PODS-Shame were no longer significant predictors of RTC-Action (both *p*s > .05).

Table 29

Hierarchical Regression Analyses Predicting Action (RTCQ) from Total Alcohol Use Consequences (YAACQ), PODS-Shame and PODS-Guilt (Sample 2)

		RTCQ-Action			
	Variable	*b*	*SE b*	*β*	R^2 change
Step 1					.18**
	(Constant)	7.70	.29		
	Total Alcohol Use Consequences	.17	.02	.42**	
Step 2					
	(Constant)	6.55	.46		.02**
	Total Alcohol Use Consequences	.14	.02	.34**	
	PODS-Shame	.21	.07	.16**	
Step 3					.05**
	(Constant)	5.14	.52		
	Total Alcohol Use Consequences	.05	.03	.12	
	PODS-Shame	.11	.07	.09	
	PODS-Guilt	.28	.05	.35**	
	Total				.25**

Note. RTCQ = Readiness To Change Questionnaire; YAACQ = Young Adult Alcohol Consequences Questionnaire; PODS = Perceptions of Drinking Scale. N = 425. The regression coefficients are standardized betas.* $p < .05$. ** $p < .01$.

Discussion

The first broad aim of the study presented in this chapter was to develop and provide an initial psychometric validation of a new measure of alcohol use-related shame and guilt, the Perception of Drinking Scale (PODS). Subsequent to this endeavour, the second aim was to explore the concurrent, convergent, and discriminant validity of the alcohol use-related shame and guilt subscales of PODS by examining their respective external correlates. The results of psychometric analysis reported in this chapter suggest that PODS performs well

with regards to reliably distinguishing between alcohol use-related shame and guilt. Providing additional support for the soundness of the newly developed measure, preliminary evidence of construct validity was also found for the alcohol use-related shame and guilt subscales of the PODS.

Having developed and reduced a large pool of items to a final set of 17, an initial Exploratory Factor Analysis of PODS data from a predominately undergraduate student sample suggested that the PODS items were best described by four factors: Alcohol use-related shame, alcohol use-related guilt, unconcern or indifference towards alcohol use, and externalizing blame of alcohol use to one's peers. The EFA solution of 17 PODS items was of approximate simple structure, with all items loading saliently on their intended factor and with the absence of any substantial cross loadings. The hypothesized four-factor model was subsequently tested in an independent sample using Confirmatory Factor Analysis, the result of which indicated a good fit to the PODS data. Consistent with past research indicating that measures of shame and guilt tend to be moderately correlated (e.g., Tangney et al., 1992, 1998), the alcohol use-related shame and guilt factors were moderately correlated as observed variables and as latent constructs. Suggesting the new measure has good reliability, each of the PODS subscales demonstrated satisfactory internal consistency and good temporal stability. In addition, the alcohol use-related shame and guilt subscales were each found to be unidimensional, and no gender differences were found in mean alcohol use-related shame and guilt subscale scores. Taken together, findings from the present study provide good to excellent initial support for the psychometric properties of the PODS. Findings from the present study further

indicate that although alcohol use-related shame and guilt are closely related constructs, they can be reliability differentiated using factor analysis procedures.

Having explored the internal validity of the PODS, the second major goal of the present study was to examine the concurrent, convergent, and discriminant validity of the alcohol use-related shame and guilt subscales of the newly developed measure. As demonstrated by a differing pattern of external correlates which were largely consistent with literature derived predictions, results from this investigation provide initial support for the external validity of the PODS shame and guilt subscales. Moreover, results from the present study provide further support for the notion that it is theoretically useful to differentiate between the two constructs when examining links between alcohol use-related shame and guilt and other variables of interest. The unique findings for each scale will now be discussed in turn.

External Correlates of Alcohol Use-Related Shame

Contrary to expectations, alcohol use-related shame was consistently unrelated to the measure of disordered alcohol use employed in the present study, the AUDIT. Indeed, alcohol use-related shame failed to correlate with total AUDIT scores, quantity and frequency of alcohol use, and the experience of adverse alcohol use-related consequences across samples. While a small-magnitude positive relationship was found between alcohol use-related shame and indicators of alcohol dependence in Sample 2, this finding was not replicated in Sample 1. Taken together, these findings suggest that the experience of disordered alcohol use symptomatology, per se, is not clearly associated with the discrete experience of alcohol use-related shame.

In explaining this finding, it is noteworthy that the samples used in the present study comprised individuals who were heavy drinking, but not necessarily disordered, alcohol users. It may be that once alcohol use truly gets disordered, as per the diagnostic criteria laid out in the DSM-IV-TR (American Psychiatric Association, 2000), that this is when experiences alcohol use-related shame emerge. If this were the case, this would suggest a non-linear, or a symptom threshold-based relationship between disordered alcohol use and the experience of alcohol use-related shame.

With regards to the experience of negative alcohol use consequences, alcohol use-related shame was consistently linked to only three alcohol use-related problem domains: academic and occupational consequences, impaired control over alcohol use, and negative self-perception experienced due to drinking. The finding that alcohol use-related shame is associated with the experience of alcohol-related problems in academic and work environments suggests that neglecting responsibilities in these life domains has the potential to be shame-evoking for some individuals. An alternative explanation may be that individuals prone to experiencing alcohol use-related shame may also have difficulty meeting their work and study commitments after drinking episodes. The medium-magnitude positive relationship found between alcohol use shame and the negative self-perception subscale of the YAACQ provides some support for the convergent validity of the PODS-Shame subscale. More specifically, individuals who reported some degree of alcohol use-related shame were inclined to endorse items on the YAACQ such as “drinking has made me feel depressed or sad” and “I have felt badly about myself because of drinking.”

The finding of a medium-magnitude positive relationship between alcohol use-related shame and the impaired control over alcohol use is consistent with findings reported in Study 1 (Chapter 6), which indicate that shame-prone individuals appear to have some degree of difficulty actively limiting their intake of alcohol. Study 1 found that shame-prone individuals were more likely to perceive past attempts at limiting alcohol use as unsuccessful and were also more pessimistic in their beliefs that they could successfully limit their alcohol intake in the future. The finding that alcohol use-related shame is positively associated with a loss of control over alcohol use is also consistent with the shame-alcohol use-shame spiral hypothesis (Dearing et al., 2005; Potter-Efron, 2002; Tangney & Dearing, 2002; Wiechelt, 2007), which suggests that a loss of control over drinking may serves as an additional source of shame for some shame-prone individuals.

In terms of construct validity, it is noteworthy that the positive trend between the experience of alcohol use-related shame and generalized shame-proneness, as assessed by the TOSCA-3, was only small in magnitude and of borderline significance ($r = .10$, $p = .06$). This finding suggests that the PODS and the TOSCA-3 shame subscales are measuring largely different constructs. One possible reason for the small-magnitude of this trend may be that while the TOSCA-3 aims to measure the general propensity to experience shame in response to host of everyday transgressive behaviours (Tangney & Dearing, 2002), the PODS-Shame subscale seeks to assess shame experienced specifically and exclusively in response to transgressive alcohol use. Thus, while the TOSCA-3 provides a global measure of dispositional shame-proneness, the PODS-Shame provides a much more narrow assessment of shame experienced in

response to a single, discrete type of transgression (i.e., problematic alcohol use). An alternative explanation of the low magnitude of the trend between generalized shame-proneness and alcohol use-related shame my lie in the sample employed in the present study. More specifically, the present study employed a non-clinical sample of predominately young adult university students and as aforementioned, these individuals were drinking quite heavily but were not necessarily disordered in their alcohol use. It seems plausible that a stronger relationship between generalized shame-proneness and the experience of alcohol use-related shame may emerge when alcohol use becomes truly disordered for individuals.

Providing support for the convergent validity of the PODS-Shame subscale, the hypothesis that alcohol use-related shame would be positively associated with measures of negative affectivity was well supported. Indeed, positive relationships generally medium in terms of magnitude were found between alcohol use-related shame and all measures of negative affectivity employed in the present study, including the experience of stress, anxiety, and depression symptomatology. This finding is congruent with research indicating that shame is associated with psychopathology (e.g., Tangney et al., 1992), and problematic outcomes in general (Leith & Baumeister, 1998; Tangney & Dearing, 2002). Also as expected, alcohol use-related shame was associated with the propensity to generalized single failures to the entire self and the tendency to employ avoidance-based coping strategies (e.g., denial, behavioural disengagement) in response to adversity. Taken together, these findings are in line with theory-derived predictions and suggest that the shame subscale of PODS is a measure of the alcohol use-related shame construct.

The hypothesized relationships between alcohol use-related shame and readiness to change drinking behaviour were also generally in line with expectations. While alcohol use-related shame was unrelated to readiness to change as assessed by the Readiness to Change Ruler, a small-magnitude negative relationship was found between alcohol use-related shame and the precontemplation stage of change as assessed by the Readiness to Change Questionnaire. A medium-magnitude positive relationship was also found between alcohol use-related shame and the contemplation of change, while a small-magnitude positive relationship was evident between alcohol use-related shame and action-related behaviour change. The positive relationship between alcohol use-related shame and the contemplation of behaviour change remained significant, even when controlling for the influence of negative alcohol-related consequences and co-occurring experiences of alcohol use-related guilt. However, regression analyses revealed that alcohol use-related shame was a non significant predictor or action-related behaviour change when controlling for the influence of negative alcohol-related consequences and coinciding experiences of alcohol use-related guilt. Together, these findings suggest that alcohol use-related shame is implicated in the contemplation of behaviour change. However, alcohol use-related shame does not appear to be associated with the proactive taking of action to address problematic alcohol use when also considering negative alcohol use-related consequences and co-occurring experiences of alcohol use-related guilt.

External Correlates of Alcohol Use-Related Guilt

In contrast to alcohol use-related shame, a differing pattern of results emerged for alcohol use-related guilt. While alcohol use-related shame was unrelated to disordered alcohol use as assessed by the AUDIT, alcohol use-related guilt was positively and consistently associated with the experience of disordered alcohol use symptomatology. Indeed, large-magnitude positive relationships were found between alcohol use related-guilt with total scores on the AUDIT, quantity and frequency of alcohol use, dependence indicators, and the experience of adverse alcohol use-related consequences in both Samples 1 and 2.

As compared to alcohol use-related shame, alcohol use guilt was also more clearly related to the experience of a diverse range of negative alcohol use-related consequence domains. Specifically, medium to large-magnitude positive relationships were found between alcohol use-related guilt with total scores on the YAACQ, social and interpersonal consequences, impaired control over drinking, negative self perceptions, neglect of self-care, engaging in risky behaviours, academic and occupational consequences, physical dependence, and blackout drinking across samples. Together, these findings suggest that alcohol use-related guilt is positively associated with the experience of *any* sort of negative consequence or deleterious outcome experienced as a result of alcohol use.

In their review of the relationships between self-conscious affect style and the propensity to engage in antisocial and risky behaviours, Stuewig and Tangney (2007) put forward several theoretical arguments based on their interpretation of the data. One of the propositions they make is that that guilt is associated with an

enhanced capacity to appreciate the effects of potentially hazardous or otherwise problematic behaviours for the self and for others. The finding that alcohol use-related guilt is associated with a large array of negative alcohol use-related consequences would seem to be consistent with this argument.

The hypothesis that alcohol use-related guilt would be unrelated to measures of negative affectivity was generally supported, albeit with the exception of a small-magnitude positive relationship found between alcohol use-related guilt and stress. Indeed, alcohol use-related guilt was unrelated to experience of anxiety and depression symptomatology, and was also unrelated to the tendency to generalize single failures to one's entire self. These findings are congruent with research indicating that guilt is generally unrelated to psychopathology and measures of negative affect (e.g., Averill et al., 2002; Tangney et al., 1992). Also as expected and in contrast to alcohol use related-shame, alcohol use-related guilt was unrelated to the propensity to use potentially maladaptive self-blame and avoidance-based coping strategies (e.g., denial, behavioural disengagement) in response to adversity.

The finding of no relationship between alcohol use-related guilt and generalized guilt-proneness, as assessed by the TOSCA-3, was unexpected and warrants some discussion. One explanation for this finding may lie in the different measurement aims of the TOSCA-3 and PODS. More specifically, the TOSCA-3 aims to assess the general tendency to experience guilt in response to a wide range of hypothetical everyday transgressions (e.g., mismanaging a project at work), while the PODS-Guilt subscale aims to assess guilt experienced specifically and only in response to alcohol use that is perceived to be transgressive. That is, the TOSCA-3 is a far more global (i.e., high bandwidth)

measure, while the PODS guilt subscale is a narrowly focused, domain-specific, assessment tool. Indeed, there appears to be some precedent of a lack of concordance between dispositional and domain-specific measures of guilt in the literature, with Kubany et al. (1996) also finding no relationship between their domain-specific Trauma-Related Guilt Inventory and generalized guilt-proneness as measured by the TOSCA. An alternative explanation for the finding of no relationship between generalized guilt-proneness and alcohol use-related guilt may be extrapolated from research which indicates that generalized guilt-proneness is inversely related to hazardous alcohol use, alcohol use disorders, and the experience of negative alcohol use-related consequences in general (Dearing et al., 2005; Study 1, Chapter 6). As guilt-proneness is associated with the successful avoidance of negative alcohol use-related consequences, it seems plausible that guilt-prone individuals may also be less likely to experience guilt-eliciting, alcohol-use related transgressions in the first place. In turn, this may explain the lack of a positive relationship between dispositional guilt-proneness and alcohol use-related guilt.

The primary test of the convergent validity of the PODS-Guilt subscale was undertaken through an examination of the relationships between alcohol use-related guilt and measures of readiness to change drinking behaviour. As hypothesized, alcohol use-related guilt was clearly related to readiness to change, demonstrating a large-magnitude positive relationship with the Readiness to Change Ruler. Alcohol use-related guilt was also significantly related to all three subscales of the Readiness to Change Questionnaire, demonstrating a medium-magnitude negative correlation with the precontemplation stage of change, and large-magnitude positive relationships with contemplation and action. Moreover,

in a regression model predicting action-related behaviour change from the experience of negative alcohol use-related consequences and alcohol use-related shame and guilt, only alcohol use-related guilt remained a significant predictor of action. The notable finding that alcohol use-related guilt is associated with the making of proactive attempts address problematic alcohol use is consistent with a large body of research indicating that experiences of guilt are associated with adaptive and positive self-regulatory outcomes (Tangney et al., 2007; Tangney & Dearing, 2002).

Clinical and Research Implications

Consistent with social-cognitive shame and guilt theory (Lewis, 1971; Tangney & Dearing, 2002), results of the present study indicate that alcohol use-related shame and guilt are closely related but separable constructs, with differing correlates. Thus, when considering negative affect sequelae experienced as a result of problematic alcohol use, whether in a research or clinical context, it appears necessary and desirable to discriminate between aversive and potentially maladaptive feelings of alcohol use-related shame and potentially more helpful experiences of guilt. Indeed, findings from the present study suggest that the PODS is a measurement tool that allows for the assessment of these discrete experiences of alcohol use-related shame and guilt.

Limitations and Directions for Future Research

There were several limitations to the study reported in this chapter that warrant discussion. Firstly, the large majority of participants in both Samples 1 and 2 were Australian first year university psychology students and most were of

Caucasian ethnicity. Consequently, the extent to which findings from the present study generalize to the wider community remains unknown. In addition to the need for further research examining the factor structure and correlates of the PODS in other samples, research examining the psychometric properties of the PODS in an alcohol dependent population remains an important area of future research. Such individuals might include those who are seeking treatment in clinical settings and those who are not, but have nonetheless run into significant life problems and difficulties due to their alcohol use.

A second limitation concerns the inherent weaknesses of the correlation-based findings reported in this chapter. Additional research involving experimental and longitudinal research designs is necessary in order to establish causal inferences between alcohol use-related shame, guilt, and other constructs of interest (e.g., readiness to change). Such research might involve tracking the experience of negative alcohol use-related consequences over time, along with any co-occurring experiences of shame or guilt. This would allow for the longitudinal investigation of the possible and respective roles that experiences of alcohol use-related shame and guilt may have in the active regulation of alcohol use. Another avenue of future research might involve making attempts to manipulate experiences of alcohol use-related shame and guilt in research or clinical settings (e.g., through clinical interventions). For instance, strategies could be developed and trialed that aim to minimize potentially problematic experiences of alcohol use-related shame and in contrast, enhance seemingly adaptive experiences of alcohol use-related guilt.

Lastly, the instruction set that accompanied the PODS in the present study requested that participants respond to items with regards to their experience with

alcohol use over the past several months. A direction for future research is to examine whether an appropriately modified version of PODS has utility in examining alcohol use-related shame and guilt experienced in response to discrete drinking episodes which result in serious deleterious outcomes (e.g., hospitalization or legal problems).

Summary

In summary, the newly developed Perceptions of Drinking Scale appears to have good psychometric properties and also appears able to reliably distinguish between experiences of alcohol use-related shame and guilt. In addition, the PODS alcohol use-related shame and guilt subscales demonstrated satisfactory construct validity, as demonstrated by their unique correlations with theoretically related constructs. While alcohol use-related shame was linked with measures of negative affect and the use of avoidance-based coping strategies, alcohol use-related guilt was unrelated to these variables. Both alcohol use-related shame and guilt appear to be positively associated with the contemplation of changing one's alcohol use-related behaviours. However, only alcohol use-related guilt was clearly linked to the taking of *action* to address problematic drinking behaviour.

The present study suggests that the PODS measure is a valid, reliable, and promising instrument for identifying experiences of alcohol use-related shame and guilt in clinical and research contexts. Avenues for future research include examining the utility of the PODS in predicting actual changes in drinking behaviour over time (i.e., longitudinally), examining the effects of various treatment modalities on experiences of alcohol use-related shame and guilt, and examining whether experiences of alcohol use related-shame and guilt are related

to other clinically relevant variables of interest (e.g., treatment seeking behaviour, alcohol use relapse propensity, treatment complexity and adherence).

CHAPTER 9

Summary of Findings, Implications, Limitations, Future Research Directions, and Concluding Comments

Review of Aims and Broad Results of the Investigations

The series of studies reported in this thesis had four broad aims. The first aim was to explore the respective relationships of shame and guilt-proneness with drinking patterns, disordered alcohol use, impaired control over alcohol consumption, and the experience of negative alcohol-related consequences. The second broad aim was to empirically examine several of the mechanisms and explanatory variables which theorists have hypothesised to explain the apparent positive relationship between shame-proneness and alcohol problems and the negative relationship between guilt-proneness and disordered alcohol use. This included an examination of the links between shame and guilt-proneness and individual differences in reasons for drinking and the beliefs that shame and guilt-prone individuals hold with regards to the effects of alcohol. The third aim was to develop and provide an initial psychometric validation of a new measure of alcohol use-related shame and guilt, the Perceptions of Drinking Scale (PODS). The final broad aim of the present thesis was to examine the construct validity of the alcohol use-related shame and guilt subscales of the newly developed PODS. This included an exploration of the respective relationships of the two constructs with disordered alcohol use, negative alcohol use-related consequences, personality variables, psychopathology, and most notably, readiness to change drinking behaviour.

In Study 1 (Chapter 6), the TOSCA-3 (Tangney et al., 2000) along with various alcohol-related measures were administered to two independent samples largely comprising undergraduate university students. In line with hypotheses, guilt-proneness demonstrated a largely consistent pattern of negative relationships with disordered alcohol use, negative alcohol-related consequences, and heavy episodic drinking. While guilt-proneness emerged as being unrelated to the *frequency* of alcohol intake, guilt-proneness was positively associated with having greater control over alcohol consumption. In contrast to guilt-proneness, shame-proneness appeared to offer no adaptive role with regard to the regulation of alcohol consumption. While shame-proneness was unrelated to hazardous alcohol consumption in the last month or past year, shame-proneness correlated significantly and positively with disordered alcohol use and the experience of negative alcohol use-related consequences. Shame-proneness was also consistently and positively related to the loss of control of alcohol intake and the experience of negative self-perceptions due to drinking. Taken together, the findings reported in Chapter 6 are congruent with and build on past research linking shame-proneness to substance use problems (Dearing et al., 2005; Meehan et al., 1996; O'Conner et al., 1994). In addition, these findings provide further support for the notion that guilt-proneness is associated with adaptive self-regulatory behaviours, while shame-proneness is associated with more problematic outcomes (Tangney & Dearing, 2002).

Building on the study reported in Chapter 6, Study 2 (Chapter 7) aimed to explore several mechanisms and hypothesised explanatory variables that have been proposed as a means of explaining the inverse relationship between guilt-proneness and alcohol problems and the apparent positive relationship between

shame-proneness and problematic alcohol use. Consistent with the shame-alcohol use-shame spiral hypothesis (Dearing et al., 2005; Potter-Efron, 2002; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007), shame-proneness was positively associated with drinking as a means of down-regulating negative emotions (i.e., anxiety and depression). Shame-prone individuals were also more inclined to endorse the belief that alcohol use often results in emotion deregulation and the experience of additional negative affect. In contrast, guilt-proneness was *inversely* related to drinking to cope with negative emotions and was either unrelated or inversely related to all other motivations for drinking. A differing pattern of relationships also emerged between self-conscious affect style and the tendency to employ alcohol-related protective behavioural strategies while drinking. More specifically, guilt-proneness was significantly and positively associated with the propensity to drink in a controlled manner, the tendency to behave in a manner associated with a reduced risk of serious alcohol use-related harm, and the tendency to employ strategies which help limit or cease alcohol consumption before intoxication. In contrast, shame-proneness was unrelated to the use of such strategies. Finally, some (albeit inconsistent) support was found to suggest that guilt-proneness may be associated with a slightly delayed onset of alcohol use and the postponement of the first episode of drinking until intoxication for individuals.

While the studies in Chapters 6 and 7 examined links between generalized shame and guilt-proneness and their respective relationships with a host of alcohol use-related variables, Study 3 (Chapter 8) sought to examine the unique correlates of alcohol use-related shame and guilt. To enable this investigation, a new scale assessing domain specific alcohol use-related shame and guilt was

developed and an initial psychometric validation study of this measure was undertaken. The findings of this study revealed that although alcohol use-related shame and guilt are closely related constructs, they can be reliably differentiated using exploratory and confirmatory factor analysis based procedures. Providing evidence of discriminant and convergent validity, alcohol use-related shame and guilt also emerged as having differing external correlates. More specifically, alcohol use-related shame was found to be positively related to measures of negative affect and the tendency to employ avoidance-based coping strategies, but was largely unrelated to the taking of action to address problematic alcohol use. In contrast, alcohol use-related guilt was generally unrelated to measures of negative affect and the tendency to use potentially maladaptive avoidance-based coping strategies. Consistent with predictions, alcohol use-related guilt was clearly related to an enhanced readiness to change drinking behaviour and in particular, the taking of action to address problematic alcohol use.

Broad Theoretical Implications

In the context of alcohol use, the series of studies presented in this Thesis further highlight the seemingly maladaptive nature of shame the adaptive and functional nature of guilt (see Tangney & Dearing, 2002; Tangney et al., 2007). Perhaps the most notable finding of the present Thesis is that shame appears to be unrelated to the successful regulation of alcohol use at the general dispositional trait (i.e., shame-proneness) level and moreover, the experience of alcohol use-related shame also appears to be a relatively unhelpful experience. Shame-proneness was found to be positively related to disordered alcohol use and the tendency to drink to cope with negative emotions, while experiences of alcohol

use-related shame were not clearly associated with an enhanced motivation to take direct *action* to address problematic alcohol use. In contrast, guilt clearly emerged as being positively associated with the successful regulation of alcohol use at the general trait level, while experiences of alcohol use-related guilt were also associated with adaptive self-regulatory outcomes. Guilt-proneness was inversely related to disordered alcohol use and experiences of alcohol use-related guilt were clearly related to an enhanced readiness to change drinking behaviour, including the taking of steps to proactively address problematic alcohol use.

The finding that that alcohol use-related shame and guilt are constructs which can be reliably differentiated provides additional support for Dearing et al.'s (2005) argument that it is important to clearly distinguish between the two emotions when examining their respective relationships with other substance use-related variables of interest. Findings from the present study also lend support to Dearing et al.'s additional suggestion that that the two self-conscious emotions should be clearly differentiated when considered in the treatment and prevention of substance use-related problems (i.e., in clinical settings).

Although not directly explored in the present study, the finding that alcohol use-related shame and guilt are separable constructs also appears to hold theoretical implications for conceptualizing the negative affect sequelae which alcohol dependent individuals oftentimes experience after an alcohol use relapse or "slip up". A source of some interest in the alcohol and drug literature (e.g., Birke, Edelmann, & Davis, 1990; Collins & Lapp, 1991; Curry, Marlatt, & Gordon, 1986; Ruderman & McKirnan, 1984; Shiffman et al., 1996, 1997; Stephens, Curtin, Simpson, & Roffman, 1994), this negative affect sequelae commonly experienced following the breach of a self-imposed consumption limit

is hypothesised to be related to whether or not an individual goes on to experience a complete alcohol use relapse (Marlatt & Gordon, 1985). While this negative affect experience, termed the Abstinence Violation Effect (AVE) by Marlatt and Gordon (1985), has been frequently construed as a single construct in the literature (e.g., Birke et al., 1990; Collins & Lapp, 1991; Curry et al., 1986; Shiffman et al., 1996; Stephens et al., 1994), results from the present study suggest that that it may be more theoretically sound to differentiate between abstinence violation-related shame and abstinence violation-related guilt.

Differentiating between the two constructs also leads to the intriguing possibility that the negative affect sequelae experienced subsequent to abstinence violation may not always be maladaptive in terms of self-regulatory outcomes. This may particularly be the case if the predominant negative affect experience is abstinence violation-related guilt, which may lead an individual to experience an enhanced desire, readiness, and resolve to make further attempts to address their drinking (see Study 3, Chapter 8). Indeed, an interesting line of future research may be to determine whether abstinence violation-related shame is a predictor of a subsequent alcohol use relapse and if abstinence violation-related guilt is associated with more favourable outcomes.

Self-Conscious Affect Style and Coping: Alcohol Use Implications

Consistent with the shame-alcohol use-shame spiral hypothesis (Dearing et al., 2005; Potter-Efron, 2002; Stuewig & Tangney, 2007; Tangney & Dearing, 2002; Wiechelt, 2007), the present series of studies provided further evidence to indicate that shame-proneness is positively associated with the experience of alcohol problems. Moreover, Study 2 (Chapter 7) found relatively clear evidence

to indicate that shame-prone individuals are more inclined to use alcohol as a means of down-regulating negative emotions than their less shame-prone peers.

The finding that shame-proneness was positively associated with the tendency to rely on alcohol in order to down-regulate negative emotional states suggests that that the shame-prone individual may have key deficits in his or her adaptive coping strategy repertoire. As such, it seems plausible that shame-prone individuals may benefit from undertaking coping skills training with the aim of increasing their tendency to employ proactive and functionally adaptive coping strategies in stressful or otherwise difficult circumstances. For example the shame-prone individual might be encouraged to solicit support from friends, family, professionals and community organizations during times of distress, rather than relying on alcohol to cope (Davis, Eshelmann, & McKay, 2000). Similarly, the shame-prone individual might benefit from learning to engage in adaptive problem-focused coping, whereby the individual actively addresses or seeks to resolve the problems that are causing distress (Folkman & Moskowitz, 2004).

In addition to coping skills training, shame-prone individuals may benefit from learning alternative and more adaptive strategies for managing anxiety and depression-related symptomatology. With regards to managing anxiety-related difficulties, evidence based Cognitive Behaviour Therapy (CBT) treatments which utilize active exposure to feared stimuli have been found to be highly efficacious in reducing anxiety symptoms (Butler, Chapman, Forman, & Beck, 2006; Hofmann & Smits, 2008). Similarly, CBT based treatments for depression which typically involve challenging dysfunctional thought processes and engaging in behavioural activation, have also demonstrated efficacy at reducing

depression-related symptomatology (Butler et al., 2006; Dobson et al., 2008; Ekers, Richards, & Gilbody, 2008). It seems plausible that should shame-prone individuals become more apt at managing negative affect experiences using CBT or other evidence-based approaches, they may be less inclined to use alcohol as a strategy for managing negative emotions. In turn, this may reduce the likelihood of the shame-prone individual developing alcohol dependence over the long-term.

Additional Targets of Therapy for the Shame-Prone Individual in Alcohol Treatment Settings

The correlationnal findings reported in Chapters 6 and 7 highlight additional potential therapy targets for the shame-prone individual in an alcohol treatment setting. Congruent with research linking shame-proneness with poor dispositional self-control ability (Tangney et al., 2004), one consistent finding from the present studies was that shame-prone individuals appear to have difficulty with regards to exerting control over their alcohol use. More specifically, shame-proneness was positively associated with perceiving past alcohol use limiting attempts as being unsuccessful and also the belief that any *future* attempts made to regulate or control alcohol use would be met with failure.

With these apparent difficulties in controlling their alcohol use, shame-prone individuals may benefit from interventions that focus on increasing their capacity to exert control over their alcohol intake. For example, clinicians may work with the shame-prone individual to explore times in the past when they have tried but failed to control their alcohol intake, identify what potentially went wrong, and formulate alternative strategies which may be more effective in the future. Moreover, if clinicians can help improve the shame-prone individual's

belief that they can control their alcohol (i.e., increase their alcohol use control self-efficacy), self-efficacy research suggests that this may translate into measurable improvements in one's actual ability to control their alcohol intake (Strecher, DeVellis, Becker, & Rosenstock, 1986). Recent research also indicates that self-control is an ability that can be developed and thus, interventions which aim to enhance general self-control capacity may also be of some use for the shame-prone individual (see Baumeister, Gailliot, DeWall, & Oaten, 2006).

An additional possible avenue or target for intervention for shame-prone individuals with problematic alcohol use relates to what appears to be their general failure to employ adaptive protective behavioural strategies while drinking (see Study 2, Chapter 7). While guilt-proneness was consistently associated with the use of strategies such as stopping and limiting consumption before one becomes intoxicated, drinking in a controlled and regulated manner, and engaging in serious harm avoidance behaviors, shame-proneness was unrelated to the use of such harm avoidance strategies while drinking (Study 2, Chapter 7). Moreover, shame-proneness was positively related to drinking in a manner that promotes intoxication (e.g., participating in drinking games, drinking shots, chugging drinks). In alcohol-related clinical settings, Martens et al., (2007) suggest that it is likely to be useful for clinicians to assess their client's reported use of the aforementioned protective behavioural strategies while consuming alcohol. When providing personalized feedback based on this assessment, Martens et al. recommend that clinicians provide positive reinforcement and praise to clients for employing strategies identified as currently in use. For those strategies identified as not currently in use, discussion can be made pertaining to ways in which they might be employed in future. Should the shame-prone

individual begin using additional protective behavioural strategies while drinking, it seems likely that this will result in a decrease in the experience of negative alcohol use-related consequences. In turn, these strategies and the enhanced avoidance of deleterious alcohol use-related outcomes may offer the shame-prone individual a means of exiting the shame-alcohol use-shame spiral.

A final target for intervention can be arguably be drawn from the identified positive relationship between shame-proneness and the motivation to drink out of reasons of conformity (see Study 2, Chapter 7). While drinking to fit in with peers and to avoid peer rejection is a commonly reported and important motivational factor for drinking in the young adult populations (MacLean & Lecci, 2000), the motivation to drink due to reasons of conformity has been associated with problematic alcohol use and the experience of negative alcohol use-related consequences (e.g., Cooper, 1994; Martens, Cox, & Beck, 2003). To help minimise the risk of alcohol use-related harms, shame-prone individuals may benefit from an intervention that aims to reduce the tendency to consume alcohol to fit in with peers, to be liked, and to avoid perceived interpersonal rejection (e.g., through assertiveness training).

Does Motivational Interviewing Inadvertently Serve to Enhance Experiences of Guilt and Minimize Experiences Shame?

In the treatment of substance use problems, one common goal of therapy is to help individuals move towards making adaptive behaviour change to address their problematic substance use (Miller & Rollnick, 2002). To achieve this end, a range of strategies are typically employed with the intention of increasing the likelihood that the substance misusing or dependent individual will take action

and make attempts to adaptively begin regulating their substance use (Miller & Heather, 1998). The finding that alcohol use-related guilt is a far more notable predictor of taking action to address problematic alcohol use than shame appears to have important alcohol treatment implications, particularly with regards to the therapeutic approaches and strategies which are employed in clinical practice.

It has been observed that when confrontational and argumentative based strategies are employed by therapists in clinical addiction treatment settings, they are generally ineffective in terms of promoting behaviour change and indeed, can serve to *reduce* an individual's readiness to change behaviour (Miller & Rollnick, 2002; White & Miller, 2007). The use of such strategies has also been associated with poor substance use-related outcomes, client dropout, and poor therapist-client rapport (Miller, 2000; Miller et al., 1995; Miller, Benefield, & Tonigan, 1993). Given that direct confrontational strategies are associated with a host of negative outcomes and are also perceived as aversive by clients, it seems plausible that such strategies may have the potential to be shame-inducing for the substance misusing or dependent individual.

In contrast to the poor outcomes associated with the use of confrontational intervention strategies in alcohol and drug settings, the client centred therapeutic approach of Motivational Interviewing (Miller, 1983; Miller & Rollnick, 2002) has been consistently associated with favourable outcomes in the treatment of problematic substance use (see Burke, Arkowitz, & Menchola, 2003; Hettema, Steele, & Miller, 2005; Rubak, Sandbaek, Lauritzen, & Christensen, 2005). Motivational Interviewing is a directive, empathy-driven counselling style that aims to elicit behaviour change through gained insight and the reduction of ambivalence towards substance consuming behaviour (Rollnick et al., 2008).

Conceptualized as a means of moving individuals through Prochaska and DiClemente's (1983) Stages of Change model, Motivational Interviewing is directive in that the therapist aims to shift the client into a stage where they are ready to change problematic behaviour through adaptive self-regulation (Miller & Rollnick, 2002).

Motivational Interviewing has been found to be particularly useful for individuals in the precontemplation or contemplation stages of behaviour change (Rollnick & Miller, 1995). In such cases, the primary goal of Motivational Interviewing is to make the benefits of behaviour change salient and move precontemplating and contemplating individuals into the *action* stage of change (Rollnick et al., 2008). Through various means, another goal of Motivational Interviewing is to help clients experience perceptual shifts whereby the individual eventually comes to realize that their substance use is incongruent with their broader self-concept as well as larger life values and goals (Miller & Rollnick, 2002). In doing so, the individual is helped to realise that their substance use is causing some degree of harm and that their quality of life and or health might be improved should they address their problematic behavior.

In the context of the present research, Motivational Interviewing (Miller & Rollnick, 2002) has a number of key characteristics which appear to have the potential to reduce experiences of substance use-related shame and to the contrary, enhance feelings of substance-related guilt. Firstly, Motivational Interviewing requires that therapists demonstrate an emphatic understanding of the client's situation and perspective (Rollnick et al., 2008). To help facilitate this, therapists are encouraged to make non-judgmental and *non-argumentative* reflective summary statements during the therapeutic discourse (Miller, 2000).

With their present situation understood and empathised with by the therapist, clients are more likely to feel as though they can share their experience without fear of punishment, and perhaps a shaming experience, from the therapist.

In Motivational Interviewing, it also recognized that it is the norm for individuals to be ambivalent with regards to changing their drinking behaviour and that resolving this ambivalence is central to a reduction in problematic alcohol consumption (Miller & Rollnick, 2002). With this acknowledgement that ambivalence towards behaviour change is reasonable and non-pathological, individuals are not lectured, chided, or shamed for not wanting to change their behaviour during Motivational Interviewing. Instead, various non-aversive strategies and techniques are used with the aim of tipping an ambivalent individual towards adaptively reducing or ceasing their alcohol consumption (Rollnick et al., 2008). Indeed, by normalizing ambivalence and *not* chastising people for their mixed feelings towards change, it seems plausible that these elements of Motivational Interviewing are potentially shame-reducing for individuals.

Another component of Motivational Interviewing which may inadvertently reduce substance-related shame and simultaneously enhance substance-related guilt is the therapist's goal of developing a clear discrepancy between the individual and ~~"th~~e substance user" (Rollnick & Miller, 1995). One way this is achieved in therapy is by examining the ways in which the client is *different* from the substance user, how *they* were different before their problematic substance use started, and how their life might be improved should they change their behaviour (Miller & Rollnick, 2002). Miller and Rollnick (2002) note that when discrepancy is successfully made between the ~~"s~~elf" and

–substance user", individuals will often experience spontaneous perceptual shifts whereby their substance use *behaviours* begin to be perceived as problematic. Thus, through the development this discrepancy, it is not the individual that is perceived as the source of the problem (as occurs in alcohol use-related shame), rather it is the problematic alcohol use itself (as occurs in alcohol use-related guilt).

A final possible way in which it appears Motivational Interviewing may help to minimize feelings of shame and associated feelings of hopelessness relates to the explicit attempts that are made by the therapist to enhance and support the individual's self-efficacy for behaviour change (Rollnick et al., 1998). Miller and Rollnick (2002) assert that therapists need to encourage autonomy and move their clients towards making attempts at behaviour change with confidence. Indeed, it seems plausible that this strategy of making efforts to bolster an individual's self-efficacy also helps to counteract the disabling effects of shame.

Additional Strategies for Reducing Shame in Clinical Alcohol Use Treatment Settings

In light of the apparent link between shame-proneness and alcohol-related problems, Dearing et al. (2005) suggest that decreasing shame-proneness may be a useful target of intervention for the treatment of substance use-related problems. While there is a general dearth of research which has looked at the efficacy shame-reduction interventions (Dearing et al., 2005; Wiechelt, 2007), Tangney and Dearing (2002) offer several strategies which clinicians can employ with clients so as to help alleviate feelings of shame.

Tangney and Dearing (2002) report that they have observed spontaneous shifts in self-conscious affect style after individuals are provided with psychoeducation with regards to the fundamental differences between shame and guilt. More specifically, they note that when clients are taught the difference between condemning of the self (as with shame) as opposed to a providing healthy negative evaluation of a transgressive behaviour (as with guilt), clients may become more behaviour as opposed to self-focussed in their negative evaluations subsequent to transgressing. For example, if an individual is experiencing shame for having engaged in a heavy episodic drinking episode which resulted in significant negative consequences, they might be encouraged to shift the focus of negative evaluation from themselves to the quantity of alcohol they consumed. In order to help promote and reinforce a shift from shame-proneness to guilt-proneness, Tangney and Dearing (2002) further suggest that it can be useful for clinicians to elaborate upon the unhelpful nature of shame and highlight the adaptive functions of guilt.

An additional shame-reduction strategy that Tangney and Dearing (2002) suggest is to help clients verbalize (i.e., name up) and elaborate upon their experience of shame, as this appears to be beneficial in reducing the experience of the aversive emotion. Tangney and Dearing further add that exploring shame-related episodes using Cognitive Behaviour Therapy (CBT) based techniques is also likely to be helpful at reducing experiences of shame, particularly if these techniques aid in the identification of dysfunctional thoughts and problematic beliefs that accompany the emotion (e.g., "I'm a failure and can't do anything right"). The use of CBT-based strategies may also help individuals re-evaluate the validity of the shame-elicited dysfunctional thoughts and through cognitive

restructuring, determine that that failures and transgressions do not typically justify condemnation of the self (Tangney & Dearing, 2002).

Acting or behaving in a manner that is *opposite* to the behavioural or action tendencies of shame has also been hypothesised as being an effective strategy for reducing or minimising the experience of the emotion (Rizvi & Linehan, 2005**).** A key emotion-regulation strategy of Dialectical Behaviour Therapy (Linehan, 1993a, 1993b), Rizvi and Linehan (2005) argue that substituting the avoidance behaviours strongly associated with shame with those that are *approach* orientated may help shorten or diminish the shame experience. For example, an individual experiencing shame due to their alcohol use might be explicitly encouraged to openly talk about their shame experience and or make reparative action, as these behaviours are *not* generally consistent with shame behavioural tendencies.

Another commonly used tool employed in Dialectical Behaviour Therapy, chain analysis, also appears to have some promise as a shame-reduction strategy (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2007). A chain analysis involves a constructing a highly detailed, visual account of the sequence of events that led up to a transgression or critical incident (e.g., behaving in a high risk manner while drinking or a violation of abstinence). During this process, the environmental circumstances, thoughts, feelings, and behaviours that occurred during the lead up to the critical event are documented and particular attention is paid to variables that appear to have increased the probability of the negative event or transgression occurring (Linehan, 1993a). Having undertaken this detailed deconstruction of the event, the individual may gain insight and an awareness of particular triggers or behaviors that may have inadvertently helped

lead to the transgression eliciting behaviour. For example, an individual experiencing shame as a result of breaching abstinence might identify through chain analysis that conflict with a partner, difficulties at work, and feelings of hopelessness were all factors which combined to increase the chances that the individual would consume alcohol. To help prevent further breaches of abstinence, the individual might then work with his or her therapist to identify problem solving strategies to address the identified triggers which contributed to the individual's decision to drink. Lynch et al. (2007) suggest that chain analysis is shame-reducing in that as opposed to focusing on personal flaws on the client, the focus is on identifying problematic behaviours and action tendencies which are amendable to change through gained insight future behaviour modification.

In alcohol treatment settings, Potter-Efron (2002) suggests that it can also often be useful to help shame-prone individuals recognize that they may have been using alcohol as a means of down-regulating aversive experiences of shame. In turn, this may help individuals actively self-monitor their motivations for consuming alcohol in the future, particularly in instances where alcohol consumption is driven by a desire to down-regulate negative affect. Potter-Effron (2002) further suggests that it can be useful to help clients be frank and honest with regard to their substance use problems, all the while discouraging individuals from engaging in shame-related self-chastisement.

Finally, Tangney and Dearing (2002) note that warm and judgement-free therapeutic environments also have the potential to be shame-ameliorating for shame-prone individuals. Drawing on the work of Rogers (1975), Tangney and Dearing suggest that the therapeutic approach of expressing unconditional positive regard towards clients is likely to help minimise experiences shame in

the therapeutic setting. Thus, to help minimise experiences of shame in an alcohol treatment context, the therapist ought to express acceptance, warmth, and positivity towards their client, irrespective of whether the individual is failing or succeeding at addressing their problematic alcohol use. Tangney and Dearing (2002) also draw on the work of Linehan (1993a, 1993b) and note that it is often desirable to help clients accept themselves and their present situation with non-judgement, while acknowledging the need to commit to future behaviour change to improve their situation. For example, an individual in an alcohol treatment setting who is experiencing shame might be gently encouraged to accept completely themself as a person, while accepting the reality of their problematic alcohol use and the need to commit to behaviour change.

Assessing Alcohol Use-Related Shame and Guilt with the PODS: Research and Clinical Applications

Although in need of further validation, there appears to be a number of potentially important research applications for the newly developed measures of alcohol use-related shame and guilt in the PODS. Firstly, it seems reasonable that the alcohol use-related shame and guilt subscales of the PODS can be deployed as predictor or independent variables when examining the relationships between the two constructs and other variables of interest (e.g., motivation and readiness to change, alcohol-related consequences, beliefs, perceptions, or personality constructs). It also appears that alcohol use-related shame and guilt may serve as important mediating or moderating variables to consider measuring during interventions designed to reduce alcohol use. Indeed, assessing the degree to which various alcohol-related interventions (e.g., brief interventions,

Motivational Interviewing, Alcoholics Anonymous etc) give rise to experiences of alcohol use-related shame and guilt would provide researchers with an enhanced understanding of the effects of such interventions on negative self and behavior evaluations. In turn, this would lead to greater insights into the mechanisms of these interventions. Although speculative, it seems plausible that generally non-aversive interventions with demonstrated efficacy, such as brief interventions (e.g., Borsari & Carey, 2000; Larimer et al., 2001; Marlatt et al., 1998), may serve to elicit experiences of alcohol-related guilt, in particular, which then translate into adaptive behaviour change.

In addition to the potential research applications of the PODS, the newly developed measure of alcohol use-related shame and guilt is also likely to be of utility for clinicians. For example, if scores on the PODS reveal that an individual is experiencing a significant level of alcohol use-related shame, a goal of the treating clinician may be to work with their client to help diffuse this aversive emotional experience (see Wiechelt, 2007). However, if the individual reports experiencing alcohol use-related guilt, the therapist may be able to carefully harness these feelings as a motivator for adaptive behaviour change (Dearing et al., 2005). In working with an individual who is experiencing alcohol use-related guilt, a clinician might work with their client to devise strategies which remedy or proactively address problematic and transgressive alcohol use. Should the individual successfully implement these reparative action based strategies, feelings of alcohol use-related guilt are likely to subside.

It also appears that the PODS may also be of some value if used in feedback-based brief interventions designed to address hazardous alcohol use. In the first session of such interventions, individuals are typically provided with a

number of self-report questionnaires which assess alcohol use, consequences, perceived drinking norms, and other variables of interest such as alcohol-related beliefs (see Larimer et al., 2001; Borsari & Carey, 2000, 2005; Marlatt et al., 1998). In the second and concluding session, the clinician typically provides feedback to the client regarding their alcohol use, their level of drinking relative to similar aged peers, and erroneous beliefs that potentially lead to greater levels of drinking (Carey, Scott-Sheldon, Carey, & DeMartini, 2007). By administering the PODS in such interventions, clinicians would be able to quantitatively gauge if or not an individual is experiencing shame and or guilt as a result of their drinking and importantly, if levels of alcohol use-related shame and guilt change *subsequent* to the brief feedback-based intervention. If feelings of alcohol use-related guilt *are* apparent before or after the intervention, it is likely that the individual also has an enhanced readiness to change their alcohol use (see Study 3, Chapter 8). However, if feelings of alcohol use-related shame are identified during the initial assessment, it might be desirable to address this aversive experience during the brief intervention. In addition, should experiences of alcohol use-related shame seemingly emerge *subsequent* to the intervention, it might be useful to identify and remedy any components of the intervention that might have been shame-inducing for the individual.

Limitations across Studies and Directions for Future Research

The studies reported in this Thesis had several methodological limitations which must be acknowledged. Perhaps the most notable limitation applicable to each of the reported studies concerns the use of the convenience sampling in that the majority of participants recruited for this research were first year university

psychology students. As a result of this primary recruitment source, there was a greater number of female than male participants and thus, gender imbalance across samples and it is likely that each sample contained a significant portion of individuals with above-average intelligence. The racial makeup of the sample was also relatively homogenous with the majority of participants being of Caucasian ethnicity. Findings from the present studies could certainly be considered more robust and generalizable should they be replicated in random, more diverse, community-drawn adult samples.

An additional and notable limitation of present series of studies exploring links between shame, guilt, and alcohol regulation, was that a clinical sample of alcohol dependent individuals was not utilized. An important next step for future research is to replicate the findings of the reported studies, including the factor structure of the PODS, in a sample of self-identifying alcohol dependent individuals.

A third notable limitation applicable to many of the findings of the present studies relates to the weaknesses inherent to correlation-based research. Given that cause and effect relationships cannot be established using correlation-based methodology (Tabachnick & Fidell, 2007), it is not possible to make causal inferences with regards to many of the findings reported across studies. In considering this issue, Dearing et al. (2005) argue that regardless of the causal direction, shame-proneness and alcohol problems appear to be positively linked and in clinical settings, shame-reduction interventions are likely to result in functional gain for the shame-prone individual (e.g., with regards to anger regulation, interpersonal relationships, and psychological wellbeing).

A fourth limitation of the present series of studies is that it lacked any qualitative, thematic investigation of alcohol use-related shame and guilt. As qualitative research investigations have yielded important findings with regards to phenomenology associated with shame and guilt (e.g. Baumeister et al., 1995; Leith & Baumeister, 1998), a direction for future research is to attain qualitative descriptions of alcohol use-related shame and guilt experiences from individuals who self-identify as having problems with their alcohol use. Such an investigation would allow for thematic analysis exploring the consequences and situational antecedents of alcohol use-related shame and guilt. In addition, a qualitative and thematic exploration of the shame-alcohol use-shame spiral hypothesis is likely to complement the correlation-based findings of the present Thesis with rich personal narratives.

Despite these aforementioned limitations, the present Thesis has notable strengths which must be acknowledged. Specifically, the present Thesis appears to have provided the first empirical investigation of the reasons for which shame and guilt-prone individuals consume alcohol, including the notion that shame-prone individuals consume alcohol to cope with negative emotions. Moreover, the present Thesis appears to have provided the first attempt at developing a tool that allows for the measurement of experiences of alcohol use-related shame and guilt.

Conclusion

In summary, the studies reported in this Thesis found that both dispositional shame-proneness and alcohol use-related shame appear to play no or very minimal adaptive role in the regulation of alcohol use. Providing support for

the shame-alcohol use-shame spiral hypothesis (Dearing et al., 2005; Potter-Efron, 2002; Tangney & Dearing, 2002; Wiechelt, 2007), dispositional shame-proneness was found to be positively associated with alcohol use disorders, alcohol use-related negative consequences, and drinking as a means of down-regulating negative affect. While alcohol use-related shame was positively related to the contemplation of behaviour change, it and was not a significant predictor of taking action to address problematic alcohol use when also considering alcohol use-related guilt and negative alcohol use-related consequences. In contrast to shame, guilt-proneness and alcohol use-related guilt were consistently found to be positively associated with the successful and adaptive regulation of alcohol use. More specifically, guilt-proneness was negatively related to disordered alcohol use and the experience of negative alcohol use-related negative consequences. Positive relationships were also found between guilt-proneness with having greater control over alcohol consumption and the tendency to use strategies which reduce the risk of alcohol use-related harm. In addition, guilt-proneness was negatively associated with drinking as a means of down-regulating negative emotions and alcohol use-related guilt was clearly associated with the taking of action to address problematic alcohol use.

Given findings that shame and guilt-proneness and alcohol use-related shame and guilt have differing implications for the regulation of alcohol use, results from the present study provide additional support for Dearing et al.'s (2005) argument that it is necessary to clearly distinguish between the two emotions when examining their respective correlates with substance use variables. These findings also appear to have important clinical implications for the delivery of treatment targeted at individuals with alcohol use-related

disorders. As experiences of shame are associated with psychopathology and a reluctance to disclose therapy relevant material (Swan & Andrews, 2003; Tangney et al., 1992), it appears to be highly desirable to minimise experiences of shame in clinical addition settings. On the other hand, guilt-proneness and experiences of alcohol use-related guilt are associated with more favourable alcohol-related self-regulatory outcomes and as such, strategies which shift experiences of shame to experiences of guilt should be considered for use by clinicians. Finally, it is hoped that researchers and clinicians will begin to examine the utility of the newly developed PODS in clinical and research settings. Indeed, it appears that the alcohol use-related shame and guilt constructs have particular relevance in the context of treating and conceptualizing the emotional sequelae a problematic alcohol use.

References

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, *87,* 49-74.

Allan, S., Gilbert, P., & Goss, K. (1994). An exploration of shame measures-II: Psychopathology. *Personality and Individual Differences*, *17*, 719-722.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

Amodio, D. M., Devine, P. G., & Harmon-Jones, E. (2007). A dynamic model of guilt: Implications for motivation and self-regulation in the context of prejudice. *Psychological Science*, *18*, 524-530.

Andrews, B. (1995). Bodily shame as a mediator between abusive experiences and depression. *Journal of Abnormal Psychology, 104*, 277–285.

Andrews, B. (1997). Bodily shame in relation to abuse in childhood and bulimia. *British Journal of Clinical Psychology, 36*, 41–50.

Andrews, B. (1998). Shame and childhood abuse. In P. Gilbert & B. Andrews (Eds.), *Shame: Interpersonal behavior, psychopathology, and culture* (pp. 176–190). New York: Oxford University Press.

Andrews, A., Brewin, C., Rose, S. & Kirk, M. (2000). Predicting PTSD in victims of violent crime: The role of shame, anger and blame. *Journal of Abnormal Psychology*, *109*, 1, 69-73.

Andrews, B., Qian, M., & Valentine, J. D. (2002). Predicting depressive symptoms with a new measure of shame: The Experience of Shame Scale. *British Journal of Clinical Psychology*, *41*, 29–42

Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment*, *10*, 176 – 181.

Armitage, C. J., Sheeran, P., Conner, M., & Arden, M. A. (2004). Stages of change or changes of stage? Predicting transitions in transtheoretical model stages in relation to healthy food choice. *Journal of Consulting and Clinical Psychology*, *72*, 491-499.

Australian Government (2007) *Standard Drink Guide*. Retrieved February 1, 2008, from http://www.alcohol.gov.au/internet/alcohol/publishing.nsf/Content/drinksguide-cnt/$File/drinksguide.pdf

Ausubel, D. P. (1955). Relationships between shame and guilt in the socializing process. *Psychological Review*, *62*, 378-390.

Averill, P. M., Diefenbach, G. J., Stanley, M. A., Breckenridge, J. K., & Lusby, B. (2002). Assessment of shame and guilt in a psychiatric sample: A comparison of two measures. *Personality and Individual Differences*, *32*, 1365-1376.

Babor, T. F., Higgins-Biddle, J.C., Saunders, J.B., & Monteiro, M.G. (2001). *AUDIT -The Alcohol Use Disorders Identification Test: Guidelines for use in primary health care* (2nd edition). Geneva: World Health Organisation.

Baldwin, K. M., Baldwin, J. R., & Ewald, T. (2006). The relationship among shame, guilt, and self-efficacy. *American Journal of Psychotherapy, 60*, 1 – 21.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, *28*, 117 – 148.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman and Company.

Bandura, A., & Locke E. A. (2003). Negative self-self efficacy and goal effects revisited. *Journal of Applied Psychology*, *88*, 87–99.

Bartlett, M. S. (1954). A note on the multiplying factors for various chi-square approximations. *Journal of the Royal Statistical Society*, *16*, 296–298.

Batson, C. D., Dyck, J. L., Brandt, J. R., Batson, J. G., Powell, A. L., McMaster, M. R. & Griffitt, C. (1988). Five studies testing the new egoistic alternatives to empathy-altruism hypothesis. *Journal of Personality and Social Psychology, 55*, 52–77.

Batson, D., Fultz, J., & Schoenrade, P. A. (2006). Distress and empathy: Two qualitatively distinct vicarious emotions with different motivational consequences. *Journal of Personality*, *55*, 19- 39.

Baumeister, R. F., Gailliot, M., DeWall, C. N., & Oaten, M. (2006). Self-regulation and personality: How interventions increase regulatory success, and how depletion moderates the effects of traits on behavior. *Journal of Personality*, *74*, 1773-1801.

Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1994). *Losing control: How and why people fail at self-regulation.* San Diego: Academic Press, Inc.

Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1994). Guilt: An interpersonal approach. *Psychological Bulletin*, *115*, 243–267.

Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1995). Personal narratives about guilt: Role in action control and interpersonal relationships. *Basic and Applied Psychology*, *17*, 173 – 198.

Baumeister, R. F., Vohs, K. D., & Tice, D. M. (2007). The strength model of self-control. *Current Directions in Psychological Science*, *16*, 396–403.

Beck, A. T. (1972). Measuring depression: The depression inventory. In T. A. Williams, M. M. Katz, & J. A. Shields (Eds.), *Recent advances in the psychobiology of the depressive illness* (pp. 299-302). Washing, DC: U.S. Government Printing Office.

Beck, A. T., Wright, F. D., Newman, C. F., & Liese, B. S. (1993). *Cognitive therapy of substance abuse*. New York: Guilford.

Benedict, R. (1946). *The chrysanthemum and the sword*. Boston: Houghton Mifflin.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*, 238–246.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, *88*, 588-606.

Birke, S. A., Edelmann, R. J., & Davis, P. E. (1990). An analysis of the abstinence violation effect in a sample of illicit drug users. *British Journal of Addiction*, *85*, 1299 – 1307.

Blacher, R. S. (2000). ~~–~~It isn't fair": postoperative depression and other manifestations of survivor guilt. *General Hospital Psychiatry*, *22*, 43-48.

Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD checklist (PCL). *Behavior Research and Therapy*, *34*, 669–673.

Borsari, B., & Carey, K. B. (2000). Effects of a brief motivational intervention with college student drinkers. *Journal of Consulting and Clinical Psychology*, *68*, 728-733.

Borsari, B., & Carey, K. B. (2005). Two brief alcohol interventions for mandated college students. *Psychology of Addictive Behaviors*, *19*, 296-302.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen & J.S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.

Burke, B. L., Arkowitz, H., & Melchola, M. (2003). The efficacy of motivational interviewing: A meta-analysis of controlled clinical trials. *Journal of Consulting and Clinical Psychology*, *8*, 149–160.

Buss, A., & Durkee, A. (1957). An inventory for assessing different kinds of hostility. *Journal of Consulting Psychology*, *21*, 343-349.

Butler, A. C., Chapman, J. E., Forman, E. M., & Beck, A. T. (2006). The empirical status of cognitive-behavioral therapy: A review of meta-analyses. *Clinical Psychology Review*, *26*, 17-31.

Canagasaby, A., & Vinson, D. C. (2005). Screening for hazardous or harmful drinking using one or two quantity-frequency questions. *Alcohol and Alcoholism*, *40*, 208 – 213.

Carey, K. B., Purnine, D. M., Maisto, S. A., & Carey, M. P. (1999). Assessing readiness to change substance abuse: A critical review of instruments. *Clinical Psychology: Science and Practice*, *6*, 245–266.

Carey, K. B., Scott-Sheldon, L. A. J., Carey, M. P., & DeMartini, K. S. (2007). Individual-level interventions to reduce college student drinking: A meta-analytic review. *Addictive Behaviors*, *32*, 2469−2494.

Carpenter, K. M., & Hasin, D. S. (1999). Drinking to cope with negative affect and DSM-IV alcohol use disorders: A test of three alternative explanations. *Journal of Studies on Alcohol*, *60*, 694–704.

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, *4*, 92-100.

Carver, C. S., La Voie, L., Kuhl, J., & Ganellen, R. J. (1988). Cognitive concomitants of depression: A further examination of the roles of generalization, high standards, and self-criticism. *Journal of Social and Clinical Psychology*, *7*, 350–365.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, *56*, 267-283.

Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate Behavior Research*, *1*, 140-161.

Castellan, N. J., Jr. (1992). Shuffling arrays: Appearances may be deceiving. *Behavior Research Methods, Instruments, & Computers*, *24*, 72-77.

Collins, L. R., & Lapp, W. M. (1991). Restraint and attributions: Evidence of the abstinence violation effect in alcohol consumption. *Cognitive Therapy and Research*, *15*, 69 – 84.

Connors, G. J., Donovan, D. M., & DiClemente, C. C. (2001). *Substance abuse treatment and the stages of change.* New York: Guilford Press.

Conradt, M., Dierk, J., Schlumberger, P., Rauh, E., Hebebrand, J., & Rief, W. (2007). Development of the Weight- and Body-Related Shame and Guilt Scale (WEB-SG) in a nonclinical sample of obese individuals. *Journal of Personality Assessment*, *88*, 317 – 327.

Cook, D. (1988). Measuring shame: The internalized shame scale. *Alcoholism Treatment Quarterly, 4*, 197–215.

Cook, D. (1994). *Internalized Shame Scale: Professional manual.* Menomonie, WI: Channel Press.

Cooper, M. L. (1994). Motivations for alcohol use among adolescents: Development and validation of a four-factor model. *Psychological Assessment*, *6*, 117 – 128.

Cooper, M. L., Frone, M. R., Russell, M., & Mudar, P. (1995). Drinking to regulate positive and negative emotions: A motivational model of alcohol use. *Journal of Personality and Social Psychology*, *69*, 990–1005.

Curry, S., Marlatt, G. A., & Gordon, J. R. (1986). Abstinence violation effect: Validation of an attributional construct with smoking cessation. *Journal of Consulting and Clinical Psychology*, *55*, 145-149.

Daeppen, J., Yersin, B., Landry, U., Pecoud, A., & Decrey, H. (2000). Reliability and validity of the Alcohol Use Disorders Identification Test (AUDIT) imbedded within a general health risk screening questionnaire: results of a survey in 332 primary care patients. *Alcoholism: Clinical and Experimental Research*, *24*, 659–665.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, *44*, 113-126.

Davis, M. D., Eshelmann, E. R., & McKay, M. (2000). *The relaxation and stress reduction workbook* (5th ed.). Oakland, CA: New Harbinger

Dearing, R. L., Stuewig, J., & Tangney, J. P. (2005). On the importance of distinguishing shame from guilt: Relations to problematic alcohol and drug use. *Addictive Behaviours*, *30*, 1392–1404.

Decety, J., & Jackson, P. L. (2006). A social-neuroscience perspective on empathy. *Current Directions in Psychological Science*, *15*, 54-58.

Derogatis, L. R., Lipman, R. S., & Covi, L. (1973). SCL-90: An outpatient psychiatric rating scale- Preliminary report. *Psychopharmacology Bulletin*, *9*, 13-28.

DiClemente, C. C. & Hughes, S. O. (1990). Stages of change profiles in outpatient alcoholism treatment. *Journal of Substance Abuse*, *2*, 217–235.

DiClemente, C. C., & Prochaska, J. O. (1998). Toward a comprehensive transtheoretical model of change: Stages of change and addictive behaviors. In W. R. Miller, & N. Heather (Eds.), *Treating addictive behaviors*, (2nd ed., pp.3–24). New York: Plenum.

Dobson, K., Hollon, S. D., Dimidjian, S., Schmaling, K. B., Kohlenberg, R. J., Gallop, R., Rizvi, S. L., Gollan, J. K., Dunner, D. L. & Jacobson, N. S. (2008). Randomized trial of behavioral activation, cognitive therapy, and antidepressant medication in the prevention of relapse and recurrence in major depression. *Journal of Consulting and Clinical Psychology*, *76*, 468-477.

Eisenberg, N. (2000). Emotion, regulation, and moral development. *Annual Review of Psychology*, *51*, 665-697.

Eisenberg, N., Spinrad, T. L., & Sadovsky, A. (2006). Empathy-related responding in children. In M. Killen & J. Smetana (Eds.), *Handbook of moral development* (pp. 517–549). Mahwah, NJ: Lawrence Erlbaum Associates.

Ekers, D., Richards, D., & Gilbody, S. (2008). A meta-analysis of randomized trials of behavioural treatment of depression. *Psychological Medicine*, *38*, 611-623.

Ellis, A. (1962). *Reason and emotion in psychotherapy*. New York: Lyle Stuart.

Feiring, C., & Taska, L. S. (2005). The persistence of shame following sexual abuse: A longitudinal look at risk and recovery. *Child Maltreatment*, *10*, 337-349.

Ferguson, T. J., Stegge, H., Eyre, H. L., Vollmer, R., & Ashbaker, M. (2000). Context effects and the (mal)adaptive nature of guilt and shame in children. *Genetic, Social, and General Psychology Monographs*, *126*, 319–345.

Ferguson, T. J., Stegge, H., Miller, E. R., & Olsen, M. E. (1999). Guilt, shame, and symptoms in children. *Developmental Psychology*, *35*, 347–357.

Feshbach, N. D. (1975). Empathy in children: Some theoretical and empirical considerations. *Counseling Psychologist*, *5*, 25 – 30.

Feshbach, N. D., & Lipian, M. (1987). *The Empathy Scale for Adults.* Los Angeles: University of California.

Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, *55*, 745–774.

Fossum, M. A., & Mason, M. J. (1986). *Facing shame: Families in recovery*. New York: W. W. Norton.

Freud, S. (1957). Mourning and melancholia. In J. Strachey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 14, pp. 243-258). London: Hogarth. (Original work published 1917).

Freud, S. (1961). The economic problem of masochism. In J. Starchey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 19. pp. 159-170). London: Hogarth. (Original work published 1924).

Gehm, T. L., & Scherer, K. R. (1988). Relating situation evaluation to emotion differentiation: Nonmetric analysis of cross-cultural questionnaire data. In K. R. Scherer (Ed.), *Facets of emotion: Recent research* (pp. 61-77). Hillsdale, NJ: Erlbaum.

Giacopassi, D. J. & Stein, P. M. (1989). To err is human: Estimating alcohol content and its effects. *Journal of Contemporary Criminal Justice*, *5*, 102-13.

Giacopassi, D. J. & Stein, P. M. (1991). The intoxication power of alcohol beverages: Image and reality. *American Journal of Drug and Alcohol Abuse*, *17*, 429-39.

Gilbert, P. (2000). The relationship of shame, social anxiety and depression: The role of the evaluation of social rank. *Clinical Psychology and Psychotherapy*, *7*, 174–189.

Ginzburg, K., Butler, L. D., Giese-Davis, J., Cavanaugh, C. E., Neri, E., Koopman, C., Classen, C. C., & Spiegel, D. (2009). Shame, guilt, and Posttraumatic Stress Disorder in adult survivors of childhood sexual abuse at risk for human immunodeficiency virus: Outcomes of a randomized clinical trial of group psychotherapy treatment. *The Journal of Nervous and Mental Disease*, *197*, 536 – 542.

Grant, B. F., & Dawson, D. A. (1997). Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: Results from the National Longitudinal Alcohol Epidemiologic Survey. *Journal of Substance Abuse*, *9*, 103 – 110.

Grant, V. V., Stewart, S. H., O'Connor, R. M., Blackwell, E., & Conrod, P. J., (2007). Psychometric evaluation of the five-factor Modified Drinking Motives Questionnaire — Revised in undergraduates. *Addictive Behaviors*, *23*, 2611 – 2632.

Green, S. B., Lissitz, R. W., & Mulaik, S. A. (1977). Limitations of coefficient alpha as an index of test unidimensionality. *Educational and Psychological Measurement*, *37*, 827–838.

Grimley, D. M., Prochaska, J. O., Velicer, W. F., & Prochaska, G. E. (1995). Contraceptive and condom use adoption and maintenance: A stage paradigm approach. *Health Education Quarterly*, *22*, 20-35.

Hanson, R. K., & Tangney, J. P. (1996). *The Test of Self-Conscious Affect—Socially Deviant Populations (TOSCA-SD).* Corrections Research, Department of the Solicitor General of Canada, Ottawa.

Harder, D. W., Cutler, L. & Rockart, L. (1992). Assessment of shame and guilt and their relationship to psychopathology. *Journal of Personality Assessment*, *59*, 584-604.

Hasking, P., Shortell, C. & Machalek, M. (2005). University students' knowledge of alcoholic drinks and their perception of alcohol-related harm. *Journal of Drug Education*, *35*, 95-109.

Hastings, M. E., Northman, L. M., & Tangney, J. P. (2000). Shame, guilt, and suicide. In T. E. Joiner & M. D. Rudd (Eds.), *Suicide science: Expanding the boundaries* (pp. 67 – 79). Norwell, MA: Kluwer.

Hayaki, J., Friedman, M. A., & Brownell, K. D. (2002). Shame and severity of bulimic symptoms. *Eating Behaviors*, *3*, 73-83.

Hayes, A. M., Harris, M. S., & Carver, C. S. (2004). Predictors of self-esteem variability. *Cognitive Therapy and Research*, *28*, 369-385.

Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment*, *7*, 238-247.

Heather, N., Rollnick,. S., & Bell, A. (1993). Predictive validity of the Readiness to Change Questionnaire. *Addiction*, *88*, 1667 – 1677.

Heather, N., Tebbutt, J. S., Mattick, R. P., & Zamir, R. (1993). Development of a scale for measuring impaired control over alcohol consumption. *Journal of Studies on Alcohol*, *54*, 700-709.

Hettema, J., Steele, J. & Miller,W. R. (2005). Motivational interviewing. *Annual Review of Clinical Psychology*, *1*, 91–111.

Hingson, R. W., Heeren, T., Jamanka, A., & Howland, J. (2000). Age at drinking onset and unintentional injury involvement after drinking. *The Journal of the American Medical Association*, *284*, 1527 – 1533.

Hingson, R. W., Hereen, T., & Winter, M. R. (2006). Age at drinking onset and alcohol dependence: Age at onset, duration and severity. *Archives of Pediatrics and Adolescent Medicine*, *160*, 739 – 746.

Hofmann, S. G., & Smits, J. A. J. (2008). Cognitive-Behavioral Therapy for adult anxiety disorders: A meta-analysis of randomized placebo-controlled trials. *Journal of Clinical Psychiatry*, *69*, 621–632.

Holahan, C. J., Moos, R. H., Holahan, C. K., Cronkite, R. C., & Randall, P. K. (2003). Drinking to cope and alcohol use and abuse in unipolar depression: A 10-year model. *Journal of Abnormal Psychology*, *112*, 159-165.

Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, *30*, 179-185.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1-55.

Isenhart, C. E. (1997). Pre-treatment readiness for change in male alcohol dependent subjects: Predictors of one-year follow-up status. *Journal of Studies on Alcohol*, *58*, 351–357.

Janoff-Bulman, R. (1979). Characterological versus behavioral self-blame: Inquiries into depression and rape. *Journal of Personality and Social Psychology, 37,* 1798 – 1809.

Johnson, T. P., & Mott, J. A. (2001). The reliability of self-reported age of onset of tobacco, alcohol and illicit drug use. *Addiction*, *96*, 1187-1198.

Joireman, J. (2004). Empathy and the self-absorption paradox II: self-rumination and self-reflection as mediators between shame, guilt, and empathy. *Self and Identity*, *3*, 225–38.

Kahler, C. W., Strong, D. R., & Read, J. P. (2005). Toward efficient and comprehensive measurement of the alcohol problems continuum in college students: The Brief Young Adult Alcohol Consequences Questionnaire. *Alcoholism: Clinical and Experimental Research*, *29*, 1180-1189.

Kaiser, H. F. (1958). The varimax criterion for analytic rotation in factor analysis. *Psychometrika*, *23*, 187-200.

Kaiser, H. F. (1970). A second-generation little jiffy. *Psychometrika*, *35*, 401-415.

Kubany, E. S., Abueg, F. R., Kilauano, W., Manke, F. P., & Kaplan, A. (1997). Development and validation of the Sources of Trauma-Related Guilt Survey: War-Zone Version. *Journal of Traumatic Stress*, *8,* 235-257.

Kubany, E. S., Abueg, F. R., Owens, J. A., Brennan, J. M., Kaplan, A. S., & Watson, S. B. (1995). Initial examination of a multidimensional model of trauma-related guilt: Applications to combat veterans and battered women. *Journal of Psychopathology and Behavioral Assessment*, *17*, 353-376.

Kubany, E. S., Haynes, S. N., Abueg, F. R., Manke, F. P., Brennan, J. M., & Stahura, C. (1996). Development and validation of the Trauma-Related Guilt Inventory (TRGI). *Psychological Assessment, 8,* 428-444.

LaBrie, J. W., Quinlan, T., Schiffman, J. E., & Earleywine, M. E. (2005). Performance of alcohol and safer sex change rulers compared with readiness to change questionnaires. *Psychology of Addictive Behaviors*, *19*, 112-115.

Laforge, R. G., Velicer, W. F., Richmond, R. L., & Owen, N. (1999). Stage distributions for five health behaviors in the United States and Australia. *Preventative Medicine*, *28*, 61-74.

Lange, A., de Beurs, E., Dolan, C., Lachnit, T., Sjollema, S., & Hanewald, G. (1999). Long-term effects of childhood sexual abuse: Objective and subjective characteristics of the abuse and psychopathology in later life. *Journal of Nervous and Mental Disease*, *187*, 150–158.

Larimer, M. E., Turner, A. P., Anderson, B. K., Fader, J. S., Kilmer, J. R., Palmer, R., & Cronce, J. M. (2001). Evaluating a brief intervention with fraternities. *Journal of Studies on Alcohol*, *62*, 370–380.

Lee, D. A., Scragg, P., & Turner, S. (2001). The role of shame and guilt in traumatic events: A clinical model of shame-based and guilt-based PTSD. *British Journal of Medical Psychology*, *74*, 451 - 466.

Leeming, D., & Boyle, M. (2004). Shame as a social phenomenon: A critical analysis of the concept of dispositional shame. *Psychology and Psychotherapy: Theory, Research and Practice, 77*, 375 – 396.

Leigh, B. C., & Stacy, A. W. (1993). Alcohol outcome expectancies: Scale construction and predictive utility in higher order confirmatory models. *Psychological Assessment*, *5*, 216 – 229.

Leith, K. P., & Baumeister, R. F. (1998). Empathy, shame, guilt, and narratives of interpersonal conflicts: guilt-prone people are better at perspective taking. *Journal of Personality*, *66*, 1–37.

Leskela, J., Dieperink, M., & Thuras, P. (2002). Shame and posttraumatic stress disorder. *Journal of Traumatic Stress*, *15*, 223 – 226.

Lester, D. (1997). The role of shame in suicide. *Suicide and Life-Threatening Behavior*, *27*, 352 - 361.

Lewis, H. B. (1971). *Shame and guilt in neurosis*. New York: International Universities Press.

Lewis, H. B. (1987). Shame and the narcissistic personality. In D. L. Nathanson (Ed.), *The many faces of shame* (pp. 93 – 132). New York: Guilford Press.

Linehan, M. (1993a). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.

Linehan, M. (1993b). *Skills training manual for treating borderline personality disorder*. New York: Guilford Press.

Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales* (2nd ed.). Sydney: The Psychology Foundation of Australia.

Lutwak, N., & Ferrari, J. R. (1997). Shame-related social anxiety: Replicating a link with various social interaction measures. *Anxiety, Stress, and Coping*, *10*, 335 – 340.

Lynch, T. R., Chapman, A. L., Rosenthal, M. Z, Kuo, J. R., & Linehan, M. M. (2006). Mechanisms of change in dialectical behavior therapy: Theoretical and empirical observations. *Journal of Clinical Psychology*, *62*, 459-480.

MacLean, M. G., & Lecci, L. (2000). A comparison of models of drinking motives in a university sample. *Psychology of Addictive Behaviors*, *14*, 83–87.

Mallett, K. A., Lee, C. M., Neighbors, C., Larimer, M. E., & Turrisi, R. (2006). Do we learn from our mistakes? An examination of the impact of negative alcohol-related consequences on college students' drinking patterns and perceptions. *Journal of Studies on Alcohol*, *67*, 269-276.

Markham, A., Thompson, T., & Bowling, A. (2005). Determinants of body-image shame. *Personality and Individual differences*, *38*, 1529 – 1541.

Marlatt, G., Baer, J., Kivlahan, D. R., Dimeff, L. A., Larimer, M. E., Quigley, L. A., Somers, J. M., & Williams, E. (1998). Screening and brief intervention for high-risk college student drinkers: Results from a 2-year follow-up assessment. *Journal of Consulting and Clinical Psychology*, *66*, 604–615.

Marlatt, G. A., & Gordon, J. R. (1985). *Relapse prevention: Maintenance strategies in the treatment of addictive behaviors.* New York: Guilford Press.

Marshall, S. J., & Biddle, S. J. H. (2001). The transtheoretical model of behavior change: A meta-analysis of applications to physical activity and exercise. *Annals of Behavioral Medicine*, *24*, 229–241.

Martens, M. P, Cox, R. H., & Beck, N. C. (2003). Negative consequences of intercollegiate athlete drinking: the role of drinking motives. *Journal of Studies on Alcohol*, *64*, 825- 828.

Martens, M. P., Pedersen, E. R., LaBrie, J. W., Ferrier, A. G., & Cimini, M. D. (2007). Measuring alcohol-related protective behavioral strategies among college students: Further examination of the Protective Behavioral Strategies Scale. *Psychology of Addictive Behaviors*, *21*, 307-315.

Martin, C. S., Liepman, M. R., Nirenberg, T. D., & Young, C. M. (1991). Young adult's knowledge of the strength of different alcoholic beverages. *Journal of Drug Education*, *21*, 149-157.

Meehan, W., O'Connor, L. E., Berry, J. W., Weiss, J., Morrison, A., & Acampora, A. (1996). Guilt, shame, and depression in clients in recovery from addiction. *Journal of Psychoactive Drugs*, *28*, 125–134.

Miller, P. A., & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing/antisocial behavior. *Psychological Bulletin*, *103*, 324-344.

Miller, W. R. (1983). Motivational interviewing with problem drinkers. *Behavioural Psychotherapy*, *11*, 147-172.

Miller, W. R. (2000). Rediscovering fire: Small interventions, large effects. *Psychology of Addictive Behaviors*, *14*, 6–18.

Miller, W. R., Benefield, R. G., & Tonigan, J. S. (1993). Enhancing motivation for change in problem drinking: A controlled comparison of two therapist styles. *Journal of Consulting and Clinical Psychology*, *61*, 455–461.

Miller, W. R., Brown, J. M., Simpson, T. L., Handmaker, N. S., Bien, T. H., Luckie, L. E, Montgomery, H. A., Hester, R. K., & Tonigan, J. S. (1995). What works? A methodological analysis of the alcohol treatment outcome literature. *Handbook of alcoholism treatment approaches: Effective alternatives* (2nd ed., pp. 12-44). Needham Heights, MA: Allyn & Bacon.

Miller, W. R., & Heather, N. (1998). *Treating addictive behaviors* (2nd ed.). New York: Plenum Press.

Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change* (2nd ed.). New York: Guilford Press.

Millon, T. (1987). *Millon Clinical Multiaxial Inventory II: Manual for the MCMI-II*. Minneapolis, National Computer Systems.

Millon, T. (1994). *Millon Clinical Multiaxial Inventory III*: *Manual*. Minneapolis, National Computer Systems.

Mills, R. S. L. (2005). Taking stock of the developmental literature on shame. *Developmental Review*, *25*, 26-63.

Morey, L. C. (1991). *The Personality Assessment Inventory: Professional manual*. Odessa, FL: Psychological Assessment Resources.

Morrison, A. P. (1984). Working with shame in psychoanalytic treatment. *Journal of the American Psychoanalytic Association*, *32*, 479-505.

Muthén, L. K., & Muthén, B. O. (2010). *Mplus 6.00 user's guide*. Los Angeles, CA: Muthén & Muthén.

National Health and Medical Research Council (NHMRC). (2001). *Australian alcohol guidelines: Health risks and benefits*. Canberra, Australia: NHMRC.

Neal, D. J., & Carey, K. B. (2004). Developing discrepancy within self-regulation theory: Use of personalized normative feedback and personal strivings with heavy-drinking college students. *Addictive Behaviors*, *29*, 281-297.

Niedenthal, P. M., Tangney, J. P., & Gavanski, I. (1994). "If only I weren't" versus "If only I hadn't": Distinguishing shame and guilt in counterfactual thinking. *Journal of Personality and Social Psychology*, *67*, 585 – 595.

O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instrumentation, and Computers*, *32*, 396-402.

O'Connor, L. E., Berry, J. W., Inaba, D., Weiss, J., & Morrison, A. (1994). Shame, guilt, and depression in men and women in recovery from addiction. *Journal of Substance Abuse Treatment*, *11*, 503–510.

Paulhus, D. L., Robins, R. W., Trzesniewski, K. H., & Tracy, J. L. (2004). Two replicable suppressor situations in personality research. *Multivariate Behavioral Research*, *39*, 303 – 328.

Peterson, C., & Seligman, M. E. P. (1984). Causal explanations as a risk factor for depression: Theory and evidence. *Psychological Review*, *91*, 347- 374.

Potter-Efron, R. (2002). *Shame, guilt, and alcoholism* (2nd ed.). New York, Haworth Press.

Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, *51*, 390-395.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. *American Psychologist, 47,* 1102 – 1114.

Prochaska, J. O., & Velicer, W. F. (1997). The transtheoretical model of health behavior change. *American Journal of Health Promotion, 12*, 38–48.

Quiles, Z. N., & Bybee, J. (1997). Chronic and predispositional guilt: Relations to mental health, prosocial behavior and religiosity. *Journal of Personality Assessment*, *69*, 104-126.

Quiles, Z. N., Kinnunen, T., & Bybee, J. (2002). Aspects of guilt and self-reported substance use in adolescence. *Journal of Drug Education*, *32*, 343–362.

Read, J. P., Kahler, C. W., Strong, D. R., & Colder, C. R. (2006). Development and preliminary validation of the Young Adult Alcohol Consequences Questionnaire. *Journal of Studies on Alcohol*, *67*, 169-177.

Reinert, D. F., & Allen, J. P. (2007). The Alcohol Use Disorders Identification Test: An update of research findings. *Alcoholism: Clinical and Experimental Research*, *31*, 185 – 199.

Rizvi, S. L. & Linehan, M. M. (2005). The treatment of maladaptive shame in borderline personality disorder: A pilot study of ~~"o~~pposite action". *Cognitive and Behavioral Practice*, *12*, 437-447.

Rogers, C. R. (1975). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, *21*, 95-103.

Rollnick, S., Heather, N., Gold, R., & Hall, W. (1992). Development of a short ~~"r~~eadiness to change" questionnaire for use in brief, opportunistic interventions among excessive drinkers. *British Journal of Addiction*, *87*, 743–754.

Rollnick, S., & Miller, W. R. (1995). What is motivational interviewing? *Behavioural and Cognitive Psychotherapy*, *23*, 325-334.

Rollnick, S., Miller, W. R., & Butler, C. C. (2008). *Motivational Interviewing in health care*. New York: Guilford Press.

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Rubak, S., Sandbaek, A., Lauritzen, T., & Christensen, B. (2005). Motivational interviewing: A systematic review and meta-analysis. *British Journal of General Practice*, *55*, 305−312.

Ruderman, A. J., & McKirnan, D. J. (1984). The development of a restrained drinking scale: A test of the abstinence violation effect among alcohol users. *Addictive Behaviors*, *9*, 365-371.

Saint Exupéry, A. de. (1995). *The little prince* (I. Testot-Ferry, Trans.). Hertfordshire: Wordsworth. (Original work published (1943).

Sanftner, J. L., Barlow, D. H., Marschall, D. E. & Tangney, J. P. (1995). The relation of shame and guilt to eating disorder symptomatology. *Journal of Social and Clinical Psychology*, *14*, 315-324.

Saunders, J. B., Aasland, O. G., Babor, T. F., de la Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption. *Addiction*, *88*, 791-804.

Seligman, M. E. P., Abramson, L. Y., Semmel, A., & von Baeyer, C. (1979). Depressive attributional style. *Journal of Abnormal Psychology, 88*, 242 – 247.

Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1970). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.

Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). *Manual of the State-Trait Anxiety Inventory (Form Y)*. Palo Alto, CA: Consulting Psychologists Press.

Spielberger, C. D., Jacobs, G., Russell, S. & Crane, R. S. (1983). Assessment of anger: The State-Trait Anger Scale. In J. N. Butcher & C. D. Spielberger (Eds.), *Advances in personality assessment* (pp. 161 – 189). Hillsdale, NJ: Erlbaum.

Shiffman, S., Hickcox, M., Paty, J. A., Gnys, M., Kassel, J. D., & Richards, T. (1996). Progression from a smoking lapse to relapse: Prediction from abstinence violation effects and nicotine dependence. *Journal of Consulting and Clinical Psychology*, *64*, 993-1002.

Shiffman, S., Hickcox, M., Paty, J. A., Gnys, M., Kassel, J. D., & Richards, T. (1997). The abstinence violation effect following smoking lapses and temptations. *Cognitive Therapy and Research*, *15*, 497-523.

SPSS Inc. (2009). *SPSS Statistics 17.0*. Chicago: SPSS Inc.

Steiger, J. H. (1990). Structural model evaluation and modification. *Multivariate Behavioral Research*, *25*, 173–180.

Stephens, R. S., Curtin, L., Simpson, E. E., & Roffman, R. A. (1994). Testing the abstinence violation effect construct with marijuana cessation. *Addictive Behaviors*, *19*, 23 – 32.

Stevens, J. P. (1992). *Applied multivariate statistics for the social sciences* (2nd edition). Hillsdale, NJ: Erlbaum.

Strecher, V. J., DeVellis, B. M., Becker, M. H., & Rosenstock, I. M. (1986). The role of self-efficacy in achieving health behavior change. *Health Education Quarterly*, *13*, 73-91.

Stuewig, J., & McCloskey, L. A. (2005). The relation of child maltreatment to shame and guilt among adolescents: Psychological routes to depression and delinquency. *Child Maltreatment, 10,* 324-336.

Stuewig J., & Tangney, J. P. (2007). Shame and guilt in antisocial and risky behaviors. In J. L. Tracy, Robins, R. W., & Tangney, J. P. (Eds.), *The Self-Conscious Emotions* (pp. 371 – 388). New York: Guilford Press.

Swan, S., & Andrews, B. (2003). The relationship between shame, eating disorders and disclosure in treatment. *British Journal of Clinical Psychology*, *42*, 367 – 378.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson Education.

Tangney, J. P. (1990). Assessing individual differences in proneness to shame and guilt: Development of the self-conscious affect and attribution scale. *Journal of Personality and Social Psychology*, *59*, 102–111.

Tangney, J. P. (1991). Moral affect: The good, the bad, and the ugly. *Journal of Personality and Social Psychology*, *61*, 598 – 607.

Tangney, J. P. (1992). Situational determinants of shame and guilt in young adulthood. *Personality and Social Psychology Bulletin*, *18*, 199-206.

Tangney, J. P. (1993). Shame and guilt. In C. G. Costello (Ed.), *Symptoms of depression* (pp. 161-180). New York: Wiley.

Tangney, J. P. (1994). The mixed legacy of the super-ego: Adaptive and maladaptive aspects of shame and guilt. In J. M. Masling & R. F. Bornstein (Eds.), *Empirical perspectives on object relations theory* (pp. 1 -28). Washington, DC: American Psychological Association.

Tangney, J. P. (1995). Shame and guilt in interpersonal relationships. In J. Tangney & K. Fischer (Eds.), *The self-conscious emotions* (pp. 114-139). New York: Guilford Press.

Tangney, J. P. (1996). Conceptual and methodological issues in the assessment of shame and guilt. *Behavior Research and Therapy, 34*, 741 – 754.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, *72*, 271–322.

Tangney, J. P., Burggraf, S. A., & Wagner, P. E. (1995). Shame-proneness, guilt-proneness, and psychological symptoms. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride* (pp. 343–367). New York: Guilford.

Tangney, J. P., & Dearing, R. L. (2002). *Shame and guilt*. New York: Guilford.

Tangney, J. P., Dearing, R. L., Wagner, P. E., & Gramzow, R. (2000). *The Test of Self-Conscious Affect – 3 (TOSCA-3).* Fairfax, VA: George Mason University.

Tangney, J. P., Marschall, D. E., Rosenberg, K., Barlow, D. H., & Wagner, P. E. (1994). *Children's and adults' autobiographical accounts of shame, guilt and pride experiences: An analysis of situational determinants and interpersonal concerns.* Unpublished manuscript.

Tangney, J. P., Mashek, D., & Stuewig, J. (2007). Working at the social-clinical-community-criminology interface: The George Mason University inmate study, *Journal of Social and Clinical Psychology*, *26*, 1-21.

Tangney, J. P., Miller, R. S., Flicker, L., Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology*, *70*, 1256 – 1269.

Tangney, J. P., Niedenthal, P. M., Covert, M. V., & Barlow, D. H. (1998). Are shame and guilt related to distinct self-discrepancies? A test of Higgins's (1987) hypotheses. *Journal of Personality and Social Psychology*, *75*, 256 – 268.

Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behaviour. *Annual Review of Psychology*, *58*, 345-372.

Tangney, J. R, Wagner, P. E., Burggraf, S. A., Gramzow, R., & Fletcher, C. (1990). *The Test of Self-Conscious Affect for Children (TOSCA-C)*. Fairfax, VA: George Mason University.

Tangney, J. P., Wagner, P. E., Fletcher, C., & Gramzow, R. (1992). Shamed into anger? The relation of shame and guilt to anger and self-reported aggression. *Journal of Personality and Social Psychology*, *62*, 669–675.

Tangney, J. P., Wagner, P. E., & Gramzow, R. (1989). *The Test of Self-Conscious Affect*. Fairfax, VA: George Mason University.

Tangney, J. P., Wagner, P. E., & Gramzow, R. (1992). Proneness to shame, proneness to guilt, and psychopathology. *Journal of Abnormal Psychology*, *103*, 469–478.

Tangney, J. P., Wagner, P. E., Hill-Barlow, D., Marschall, D. E., & Gramzow, R. (1996). Relation of shame and guilt to constructive versus destructive responses to anger across the lifespan. *Journal of Personality and Social Psychology*, *70*, 797 – 809.

Tangney, J. P., Wagner, P. E., Marschall, D., & Gramzow, R. (1991). *The Anger Response Inventory (ARI)*. Fairfax, VA: George Mason University.

Tibbetts, S. G. (2003). Self-conscious emotions and criminal offending. *Psychological Reports, 93*, 101-126.

Tooke, W. S., & Ickes,W. (1988). A measure of adherence to conventional morality. *Journal of Social and Clinical Psychology, 6*, 310- 334.

Thompson, T., Dinnel, D. L., & Dill, N. J. (2003). Development and validation of a Body Image Guilt and Shame Scale. *Personality and Individual Differences*, *34*, 59 – 75.

Thompson, T., Sharp, J., & Alexander, J. (2008). Assessing the psychometric properties of a scenario-based measure of achievement guilt and shame. *Educational Psychology: An International Journal of Experimental Educational Psychology*, *28*, 373 – 395.

Tracy, J. L., & Robins, R. W. (2004). Putting the self into self-conscious emotions: A theoretical model. *Psychological Inquiry*, *15*, 103-125.

Tracy, J. L., Robins, R. W. (2006). Appraisal antecedents of shame, guilt, and pride: Support for a theoretical model. *Personality and Social Psychology Bulletin*, *32*, 1339-1351.

Tracy, J. L., & Robins, R. W. (2007). The self in self-conscious emotions: A cognitive appraisal approach. In J. L. Tracy, R. W. Robins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 3–20). New York, NY: Guilford Press.

Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, *38*, 1-10.

Webb, M., Heisler, D., Call, S., Chickering, S. A. & Colburn, T. A. (2007). Shame, guilt, symptoms of depression, and reported history of psychological maltreatment. *Child Abuse and Neglect*, *31*, 1143-1153.

Wee, C, C., Davis, R. B., & Phillips, R. S. (2005). Stage of readiness to control weight and adopt weight control behaviors in primary care. *Journal of General Internal Medicine*, *20*, 410 – 415.

Weiner, B. (1985). ―Spontaneous" causal thinking. *Psychological Bulletin*, *97*, 74 – 84.

Weiner, B. (1986). Attribution, emotion, and action. In R. M. Sorrentino & E. T. Higgins (Eds.). *Handbook of motivation and cognition: Foundations of social behavior (*pp. 281 – 312). New York: Guilford Press.

Weinstock, M. A., Rossi, J. S., Redding, C. A., Maddock, J. E., & Cottrill, S. D. (2000). Sun protection behaviors and stages of change for the primary prevention of skin cancers among beachgoers in southeastern New England. *Annals of Behavioral Medicine*, *22*, 286 – 293.

White, A. M., Kraus, C. L., Flom, J. D., Kestenbaum, L. A., Mitchell, J. R., Shah, K., & Swartzwelder, H. S. (2005). College students lack knowledge of standard drink volumes: Implications for definitions of risky drinking based on survey data. *Alcoholism: Clinical and Experimental Research, 29*, 631-638.

White, A. M., Kraus, C. L., McCracken, L. A. & Swartzwelder, H. S. (2003). Do college students drink more than they think? Use of a free-pour paradigm to determine how college students define standard drinks. *Alcoholism: Clinical and Experimental Research*, *27*, 1750-1756.

White, W. & Miller, W. (2007). The use of confrontation in addiction treatment: History, science and time for change. *Counselor*, *8*, 12-30.

Wiechelt, S. A. (2007). The specter of shame in substance misuse. *Substance Use and Misuse*, *42*, 399-409.

Wiechelt, S. A., & Sales, E. (2001). The role of shame in women's recovery from alcoholism: The impact of childhood sexual abuse. *Journal of Social Work Practice in the Addictions*, *1*, 101–116.

Willoughby, F. W. & Edens, J. F. (1996). Construct validity and predictive utility of the stages of change scale for alcoholics. *Journal of Substance Abuse*, *8*, 275–291.

Wong, M. R., & Cook, D. (1992). Shame and its contribution to PTSD. *Journal of Traumatic Stress*, *5*, 557–562.

Wright, K., & Gudjonsson, G. H. (2007). The development of a scale for measuring offence-related feelings of shame and guilt. *The Journal of Forensic Psychiatry and Psychology*, *18*, 307 – 316.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, *25*, 82–91.

Appendix A

Test of Self-Conscious Affect-3 (TOSCA-3: Tangney et al., 2000)

Below are situations that people are likely to encounter in day-to-day life, followed by several common reactions to those situations.

As you read each scenario, try to imagine yourself in that situation. Then indicate how likely you would be to react in each of the ways described. We ask you to rate all responses because people may feel or react more than one way to the same situation, or they may react different ways at different times.

For example:

A. You wake up early one Saturday morning. It is cold and rainy outside.

a) You would telephone a friend to catch up on news. (1)---2---3---4---5
not likely very likely

b) You would take the extra time to read the paper. 1---2---3---4---(5)
not likely very likely

c) You would feel disappointed that it's raining. 1---2---(3)---4---5
not likely very likely

d) You would wonder why you woke up so early. 1---2---3---(4)---5
not likely very likely

In the above example, I've rated ALL of the answers by circling a number. I circled a "1" for answer (a) because I wouldn't want to wake up a friend very early on a Saturday morning -- so it's not at all likely that I would do that. I circled a "5" for answer (b) because I almost always read the paper if I have time in the morning (very likely). I circled a "3" for answer (c) because for me it's about half and half. Sometimes I would be disappointed about the rain and sometimes I wouldn't -- it would depend on what I had planned. And I circled a "4" for answer (d) because I would probably wonder why I had awakened so early.

Please do not skip any items -- rate all responses.

1. You make plans to meet a friend for lunch. At 5 o'clock, you realize you stood your friend up.

	not likely **very likely**
a) You would think: "I'm inconsiderate."	1---2---3---4---5
b) You would think: "Well, my friend will understand."	1---2---3---4---5
c) You'd think you should make it up to your friend as soon as possible.	1---2---3---4---5
d) You would think: "My boss distracted me just before lunch."	1---2---3---4---5

2. You break something at work and then hide it.

	not likely very likely
a) You would think: "This is making me anxious. I need to either fix it or get someone else to."	1---2---3---4---5
b) You would think about quitting.	1---2---3---4---5
c) You would think: "A lot of things aren't made very well these days."	1---2---3---4---5
d) You would think: "It was only an accident."	1---2---3---4---5

3. At work, you wait until the last minute to plan a project, and it turns out badly.

	not likely very likely
a) You would feel incompetent.	1---2---3---4---5
b) You would think: "There are never enough hours in the day."	1---2---3---4---5
c) You would feel: "I deserve to be reprimanded for mismanaging the project."	1---2---3---4---5
d) You would think: "What's done is done."	1---2---3---4---5

4. You make a mistake at work and find out a co-worker is blamed for the error.

	not likely very likely
a) You would think the company did not like the coworker	1---2---3---4---5
b) You would think: "Life is not fair."	1---2---3---4---5
c) You would keep quiet and avoid the co-worker.	1---2---3---4---5
d) You would feel unhappy and eager to correct the situation.	1---2---3---4---5

5. While playing around, you throw a ball and it hits your friend in the face.

	not likely very likely
a) You would feel inadequate that you can't even throw a ball.	1---2---3---4---5
b) You would think maybe your friend needs more practice at catching	1---2---3---4---5
c) You would think: "It was just an accident."	1---2---3---4---5
d) You would apologize and make sure your friend feels better.	1---2---3---4---5

6. You are driving down the road, and you hit a small animal.

	not likely very likely
a) You would think the animal shouldn't have been on the road.	1---2---3---4---5
b) You would think: "I'm terrible."	1---2---3---4---5
c) You would feel: "Well, it was an accident."	1---2---3---4---5
d) You'd feel bad you hadn't been more alert driving down the road.	1---2---3---4---5

7. You walk out of an exam thinking you did extremely well. Then you find out you did poorly.

	not likely very likely
a) You would think: "Well, it's just a test."	1---2---3---4---5
b) You would think: "The instructor doesn't like me."	1---2---3---4---5
c) You would think: "I should have studied harder."	1---2---3---4---5
d) You would feel stupid.	1---2---3---4---5

8. While out with a group of friends, you make fun of a friend who's not there.

	not likely very likely
a) You would think: "It was all in fun; it's harmless."	1---2---3---4---5
b) You would feel small...like a rat.	1---2---3---4---5
c) You would think that perhaps that friend should have been there to defend himself/herself.	1---2---3---4---5
d) You would apologize and talk about that person's good points.	1---2---3---4---5

9. You make a big mistake on an important project at work. People were depending on you, and your boss criticizes you.

	not likely very likely
a) You would think your boss should have been more clear about what was expected of you.	1---2---3---4---5
b) You would feel like you wanted to hide.	1---2---3---4---5
c) You would think: "I should have recognized the problem and done a better job."	1---2---3---4---5
d) You would think: "Well, nobody's perfect."	1---2---3---4---5

10. You are taking care of your friend's dog while they are on vacation and the dog runs away.

	not likely **very likely**
a) You would think, "I am irresponsible and incompetent."	1---2---3---4---5
b) You would think your friend must not take very good care of their dog or it wouldn't have run away.	1---2---3---4---5
c) You would vow to be more careful next time.	1---2---3---4---5
d) You would think your friend could just get a new dog	1---2---3---4---5

11. You attend your co-worker's housewarming party and you spill red wine on a new cream-colored carpet, but you think no one notices.

	not likely **very likely**
a) You think your co-worker should have expected some accidents at such a big party.	1---2---3---4---5
b) You would stay late to help clean up the stain after the party	1---2---3---4---5
c) You would wish you were anywhere but at the party	1---2---3---4---5
d) You would wonder why your co-worker chose to serve red wine with the new light carpet.	1---2---3---4---5

Appendix B

Alcohol Use Disorders Identification Test (AUDIT: Saunders et al., 1993)

The following questions are designed to get an estimation of your current level of drinking. Please refer to the standard drink guide provided to help improve the accuracy of your estimations.

Please circle the response that best fits your drinking. Remember, your answers are completely anonymous.					
1. How often do you have a drink containing alcohol?	Never	Monthly or less	2 -- 4 times a month	2 -- 3 times a week	4 or more times a week
2. How many standard drinks containing alcohol do you have on a typical day when you are drinking?	1 – 2	3 -- 4	5 -- 6	7 -- 9	10 or more
3. How often do you have six or more standard drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
4. How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
5. How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
7. How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily

8. How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
9. Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, during the last year
10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year

Appendix C

Standard Drink Estimation Guide

Research suggests that the vast majority of us are inaccurate when we estimate how much we drink on each occasion. This guide is provided to help you estimate your current level of drinking for questions that will follow. The number of standard drinks for each beverage is in bold.

Appendix D

Impaired Control Scale (ICS: Heather et al., 1992)

Drinking cut down attempts

With regard to your experiences drinking over <u>the past six months</u>, please indicate the frequency with which each of the following statements have or have not occurred. There are no right or wrong answers.

During the past six months….	**Never**	**Rarely**	**Some-times**	**Often**	**Always**
1. I have tried to limit the amount I drank.	0	1	2	3	4
2. I have tried to resist the opportunity to start drinking.	0	1	2	3	4
3. I have tried to slow down my drinking.	0	1	2	3	4
4. I have tried to cut down on my drinking (i.e., drink less).	0	1	2	3	4
5. I have tried to stop drinking for a period of time.	0	1	2	3	4

Drinking control

We are now interested in what has <u>*actually happened or not happened*</u> with regard to your drinking over the past six months.

Please use the "Does not Apply" response option only if no other response option makes sense (particularly for items 9 and 15).

During the past six months….	**Does not Apply**	**Never**	**Rarely**	**Some-times**	**Often**	**Always**
6. I have found it difficult to limit the amount I drank.	0	1	2	3	4	5

7. I have started drinking even after deciding not to.	0	1	2	3	4	5
8. Even when I intended having only one or two drinks, I have ended up having many more	0	1	2	3	4	5
9. I have been able to cut down my drinking (i.e., drink less) when I wanted to.	0	1	2	3	4	5
10. I have started drinking at times when I knew it would cause me problems (e.g., problems at work, with family/friends or with the police etc.).	0	1	2	3	4	5
11. I have been able to stop drinking easily after one or two drinks.	0	1	2	3	4	5
12. I have been able to stop drinking before becoming completely drunk.	0	1	2	3	4	5
13. I have had an irresistible urge to continue drinking once I started.	0	1	2	3	4	5
14. I have found it difficult to resist drinking, even for a single day.	0	1	2	3	4	5
15. I have been able to slow down my drinking when I wanted to.	0	1	2	3	4	5

Beliefs about my drinking

The following questions concern *<u>your beliefs</u>* about your current drinking. *What would happen if you decided to stop consuming alcohol or drink less?* Please indicate your level of agreement with each item. There are no right or wrong answers.

If I decided to stop drinking or drink less…	**Strongly Disagree**	**Disagree**	**Unsure**	**Agree**	**Strongly Agree**
16. I would have difficulty limiting the amount I drink.	1	2	3	4	5
17. I would start to drink, even if I'd decided not to.	1	2	3	4	5
18. Even if I intended having only one or two drinks, I would end up having many more.	1	2	3	4	5
19. I could cut down my drinking (i.e., drink less) if I wanted to.	1	2	3	4	5
20. I would start drinking at times when I knew it would cause me problems (e.g., problems at work, with family/friends or with the police etc.).	1	2	3	4	5
21. I could stop drinking easily after one or two drinks.	1	2	3	4	5
22. I would be able to stop drinking before becoming completely drunk.	1	2	3	4	5
23. I would have an irresistible urge to continue drinking once I started.	1	2	3	4	5

24. I would find it difficult to resist drinking, even for a single day.	1	2	3	4	5
25. I could slow down my drinking if I wanted to.	1	2	3	4	5

Appendix E

Young Adult Alcohol Consequences Questionnaire (YAACQ; Read et al., 2006)

Drinking related events

A number of negative consequences can occur as a result of drinking. By circling the appropriate "yes" or "no" response, please indicate whether or not you have experienced any of the following negative consequences as a result of your drinking <u>in the past year.</u>			
1	While drinking, I have said or done embarrassing things.	Yes	No
2	My drinking has created problems between myself and my boyfriend/girlfriend/spouse/parents, or other near relatives.	Yes	No
3	I have become rude, obnoxious, or insulting after drinking.	Yes	No
4	My boyfriend/girlfriend/spouse/parents have complained to me about my drinking.	Yes	No
5	While drinking, I have said harsh or cruel things to someone.	Yes	No
6	I have said things while drinking that I later regretted.	Yes	No
7	I often drank more than I originally had planned.	Yes	No
8	I have spent too much time drinking.	Yes	No
9	I often have ended up drinking on nights when I had planned not to drink.	Yes	No
10	I often have found it difficult to limit how much I drink.	Yes	No
11	I have tried to quit drinking because I thought I was drinking too much.	Yes	No
12	I often have thought about needing to cut down or to stop drinking.	Yes	No
13	I have felt badly about myself because of drinking	Yes	No
14	I have been unhappy because of my drinking.	Yes	No
15	I have felt guilty about my drinking.	Yes	No

16	Drinking has made me feel depressed or sad.	Yes	No
17	Because of my drinking, I have not eaten properly.	Yes	No
18	I have been less physically active because of my drinking.	Yes	No
19	Because of my drinking, I have not slept properly.	Yes	No
20	My physical appearance has been harmed by my drinking.	Yes	No
21	I have been overweight because of my drinking.	Yes	No
22	I haven't been as sharp mentally because of my drinking.	Yes	No
23	I have not had as much time to pursue activities or recreation because of drinking	Yes	No
24	I have had less energy or felt tired because of my drinking.	Yes	No
25	I have driven a car when I knew I had too much to drink to drive.	Yes	No
26	I have taken foolish risks when I have been drinking.	Yes	No
27	I have gotten into physical fights because of drinking.	Yes	No
28	I have damaged property or done something disruptive like setting off a fire alarm, or other things like that after drinking.	Yes	No
29	As a result of drinking, I neglected to protect myself or partner from STD or unwanted pregnancy.	Yes	No
30	When drinking, I have done impulsive things that I regretted later.	Yes	No
31	I have injured someone else while drinking or intoxicated.	Yes	No
32	The quality of my work or school work has suffered because of drinking	Yes	No
33	I haven't gone to work or have missed class because of drinking, a hangover, or other illness caused by drinking.	Yes	No
34	I have neglected obligations to family, work, or school because of drinking.	Yes	No

35	I have received a lower grade on an exam or paper than I ordinarily would have because of drinking.	Yes	No
36	I have felt like I needed a drink after I'd gotten up.	Yes	No
37	I have had "the shakes" after stopping or cutting down on drinking.	Yes	No
38	I have found that I needed larger amounts of alcohol to feel any effect, or that I could no longer get high/drunk on the amount that used to get me high/drunk.	Yes	No
39	I have felt anxious, agitated, or restless after stopping or cutting down on drinking.	Yes	No
40	I have had a hangover (headache, sick stomach) the morning after drinking.	Yes	No
41	I have passed out from drinking.	Yes	No
42	I have felt very sick to my stomach or thrown up after drinking.	Yes	No
43	I have woken up in an unexpected place after heavy drinking.	Yes	No
44	I've not been able to remember large stretches of time while drinking.	Yes	No
45	I have awakened the day after drinking and found I could not remember a part of the evening before.	Yes	No
46	I have had a blackout after drinking heavily.	Yes	No
47	I have gotten into trouble at work or school because of drinking.	Yes	No
48	My drinking has gotten me into sexual situations I later regretted.	Yes	No

Appendix F

Alcohol Use in Past Month Measures

Drinking in the past month

Using the column to the right, please answer in regard to your drinking *in the past 30 days*. Please refer to the standard drink guide provided to help improve the accuracy of your estimations. Your answers are completely anonymous.	
1. On how many days (in the past month) have you had some kind of beverage containing alcohol?	____ day(s)
2. In the past month, when you were drinking alcohol, how many standard drinks did you usually have on any ONE occasion?	____ standard drink(s)
3. In the past month, how many times have you had [5 (men)/4 (women)] or more standard drinks at a single sitting?	____ time(s)
4. In the past month, how many times have you gotten intoxicated (i.e., drunk/wasted/blind/smashed) from drinking alcohol?	____ time(s)
5. On how many days have you drunk alcohol before 4 P.M. in the past month?	____ day(s)

Appendix G

Hazardous Alcohol Use in Past Year Measures

Drinking in the past year

Using the column to the right, please answer in regard to your drinking *in the past year*. Please refer to the standard drink guide provided to help improve the accuracy of your estimations. Your answers are completely anonymous.	
1. What is the greatest number of standard drinks you consumed **in a 2-hour period** during the past 12 months?	____standard drink(s)
2. What is the greatest number of standard drinks you consumed **in a single drinking session** (from start to finish) during the past 12 months?	____ standard drink(s)

Appendix H

Alcohol Consumption Behavioural Intentions

Drinking intentions for the next 4 weeks.

People's drinking patterns tend to change over time and can depend on the time of year, social activities, and range of other factors. The following questions aim to measure what you believe are likely to be your drinking patterns for the next 4 weeks. There are no right or wrong answers and if you're not sure, just give your best estimate.	
1. ***During the next 4 weeks,*** on how many days do you predict you will consume some kind of beverage containing alcohol?	____ day(s)
2. ***During the next 4 weeks***, when you are drinking alcohol, how many standard drinks do you predict you will generally have on any ONE occasion?	____ standard drink(s)
3. ***During the next 4 weeks***, on how many occasions do you predict you will have [5 (men)/4 (women)] or more standard drinks at a single sitting?	____ time(s)
4. ***During the next 4 weeks***, how many times do you predict you will get intoxicated (i.e., drunk/wasted/blind/smashed) from drinking alcohol?	____ time(s)
5. ***During the next 4 weeks***, what is the greatest number of standard drinks you predict you will consume in a single drinking session (from start to finish)?	____ standard drink(s)

Appendix I

Information Sheet

Drinking and emotions: Links with personality and behaviour

Thank you for your interest in this study conducted by Mr. Matt Treeby. This project is under the supervision of Chief Investigators, Dr Raimondo Bruno (lecturer) and Professor Rapson Gomez, both academics in the University of Tasmania's School of Psychology.

Purpose of the study
The purpose of the study is to obtain a deeper understanding of the relationship between emotions, personality, coping, alcohol use and drinking behaviour. An additional aim of this study is to explore the validity and reliability of a new measure designed to assess self-conscious emotions experienced as a consequence of alcohol use.

Benefit
By participating in this study, you will be contributing to new research that seeks to explore the relationships between self-conscious emotions, personality, coping and alcohol use. In addition, you will also be helping us to better understand the different reasons individuals have for drinking alcohol.

Who can participate?
Anybody who has consumed alcohol at some stage in the past year can participate in this research.

Study procedures
Participation in this study involves filling out a number of questionnaire measures that assess personality, coping, alcohol use and problems experienced as a result of alcohol use. These questionnaires are expected to take between 55 minutes and 60 minutes to complete.

Course credit for participation
If you are a first year psychology student, you will receive 1 hour of research participation credit.

Possible risks or discomforts
Although unlikely, the questionnaires may raise some concerns for you because of some personal experiences. If this occurs and you feel you would like to discuss these concerns with a counsellor, you can contact Lifeline on 13 11 14. Alternatively, if you would like more information about alcohol and drugs, or referrals to local services, the Alcohol and Drug Information Service is available 24 hours a day, on 1800 811 994 (freecall).

Will I be identifiable by being involved in this study?

Data acquired from the questionnaire will be *completely anonymous* and you will not be required to provide any personally identifying information.

How private is the information that I give?

Questionnaires will be stored in locked cabinets in the School of Psychology at the University of Tasmania for a period of 5 years subsequent to the publication of any scholarly journal articles and the submission of the student researcher's thesis. Once this time has lapsed, all questionnaires will be destroyed using a paper shredder.

Can I withdraw from the research if I wish?

Your participation in this study is also completely voluntary and your initial agreement to participate does not stop you from discontinuing at any time.

Consent

The submission of your anonymously filled out questionnaire will be taken as consent for your data to be used in the study.

Who do I need to contact if I have any questions about the research?

If you would like to know more about the research, please contact Matt Treeby on (03) 6226 2260 or by email at mstreeby@utas.edu.au. Alternatively, you can contact Dr. Raimondo Bruno on (03) 6226 2237 or by email at Raimondo.Bruno@utas.edu.au.

Has this research been approved by an ethics committee?

This project has received ethical approval from the Human Research Ethics Committee (Tasmania) Network which is constituted under the National Health & Medical Research Council. This project has also received the approval of the UTAS School of Psychology.

Concerns or complaints (Who can I contact if I have any concerns?)

If you have any concerns of an ethical nature or complaints about the manner in which the project is conducted, you may contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network. The Ethics Executive Officer can be contacted on (03) 6226 7479, or human.ethics@utas.edu.au.

Am I able to find out about the results of the research?

When available, results of this study will be posted on the UTAS School of Psychology website.
URL: http://fcms.its.utas.edu.au/scieng/psychol/index.asp

Results of the study can also be provided by Mr. Matt Treeby on (03) 6226 2260 or by email at mstreeby@utas.edu.au.

Thank-you for your time and we hope you are interested in helping us conduct this research.

Mr Matt Treeby, Dr Raimondo Bruno & Professor Rapson Gomez

School of Psychology
University of Tasmania

Appendix J

Demographics Questionnaire

Some final information about you
Please circle answers where appropriate

Current age: _____ years			***Sex:*** Female Male	
Estimated age at which you consumed your first alcoholic beverage (more than a few sips): ***Age:*** _____ Years ***Estimated school grade at the time***: _____ Grade *or other(specify)*_____				
Estimated age at which you first consumed alcohol at a level that resulted in you getting drunk (smashed, pissed, wasted etc.) ***Age:*** _____ Years ***Estimated school grade at the time***: _____ Grade *or other(specify)*_____				
Ethnicity:	White	Black	Asian	Hispanic Other
Religious Affiliation:	Buddhism		Islam	No Religion
	Christianity		Judaism	
	Hinduism		Other Religion	
Employment status:	Unemployed		Part-time	
	Seeking work		Full-time	
	Casual		Pensioner	
Studying status:	Not currently studying		Full-time	Part-time

Appendix K

Alcohol Outcome Expectancies Scale (Leigh & Stacy, 1993)

Positive and negative things that happen when drinking

Here is a list of some positive and negative effects or consequences that some people experience after drinking alcohol. How likely is it that these things happen to you when you drink alcohol? Circle the number that best describes how drinking alcohol would affect you. Please respond to all items.

When I drink alcohol:_____ ?"

When I drink alcohol…..	**No Chance**	**Very Unlikely**	**Unlikely**	**Likely**	**Very Likely**	**Certain to Happen**
2. I am able to talk more freely	0	1	2	3	4	5
3. I get a headache	0	1	2	3	4	5
4. I am able to take my mind off my problems	0	1	2	3	4	5
5. I have problems with memory and concentration	0	1	2	3	4	5
6. I am more sexually responsive	0	1	2	3	4	5
7. I become aggressive	0	1	2	3	4	5
8. I am friendlier	0	1	2	3	4	5
9. I feel good	0	1	2	3	4	5
10. I am less alert	0	1	2	3	4	5
11. It is easier for me to socialize	0	1	2	3	4	5
12. I feel sad or depressed	0	1	2	3	4	5

13. I am more sexually assertive	0	1	2	3	4	5
14. I enjoy the buzz	0	1	2	3	4	5
15. I feel ashamed of myself	0	1	2	3	4	5
16. I have problems driving	0	1	2	3	4	5
17. I experience **un**pleasant physical effects	0	1	2	3	4	5
18. I have more desire for sex	0	1	2	3	4	5
19. I can't concentrate	0	1	2	3	4	5
20. I get a hangover	0	1	2	3	4	5
21. I feel happy	0	1	2	3	4	5
22. I get mean	0	1	2	3	4	5
23. I feel more social	0	1	2	3	4	5
24. It takes away my negative moods and feelings	0	1	2	3	4	5
25. I feel pleasant physical effects	0	1	2	3	4	5
26. I feel guilty	0	1	2	3	4	5
27. I have a good time	0	1	2	3	4	5
28. I get into fights	0	1	2	3	4	5
29. I feel sick	0	1	2	3	4	5

30. I become more sexually active	0	1	2	3	4	5
31. I become clumsy or uncoordinated	0	1	2	3	4	5
32. I am more outgoing	0	1	2	3	4	5
33. It is fun	0	1	2	3	4	5
34. I feel less stressed	0	1	2	3	4	5

Appendix L

Protective Behavioural Strategies Scale (PBSS: Martens et al., 2007*)*

Drinking strategies

Please indicate the degree to which you engage in the following behaviours <u>when drinking alcohol</u>. There are no right or wrong answers and you are not expected to answer in any particular way.						
	Never	**Rarely**	**Occasio-nally**	**Some-times**	**Usually**	**Always**
1. Use a designated driver or catch a taxi	0	1	2	3	4	5
2. Determine not to exceed a set number of drinks	0	1	2	3	4	5
3. Alternate alcoholic and non-alcoholic drinks	0	1	2	3	4	5
4. Have a friend let you know when you have had enough to drink	0	1	2	3	4	5
5. Avoid drinking games	0	1	2	3	4	5
6. Leave the bar/club/party at a predetermined time	0	1	2	3	4	5
7. Make sure that you go home with a friend	0	1	2	3	4	5
8. Know where your drink has been at all times	0	1	2	3	4	5
9. Drink shots of alcohol (i.e., spirits)	0	1	2	3	4	5
10. Stop drinking at a predetermined time	0	1	2	3	4	5
11. Drink water while drinking alcohol	0	1	2	3	4	5
12. Put extra ice in your drink	0	1	2	3	4	5

13. Avoid mixing different types of alcohol	0	1	2	3	4	5
14. Drink slowly, rather than gulp or skull	0	1	2	3	4	5
15. Avoid trying to “keep up” or “out-drink” others	0	1	2	3	4	5

Appendix M

Modified Drinking Motives Questionnaire – Revised (MDMQ-R: Grant et al., 2007)

My reasons for drinking

Different people drink for different reasons. Below is a list of reasons people sometimes give for drinking alcohol. Thinking of all the times you've drunk in the past year, how often would you say that you've drunk for each of the following reasons?

I drink…	Almost Never or Never	Some of the Time	Half of the Time	Most of the Time	Almost Always or Always
1. As a way to celebrate.	1	2	3	4	5
2. To relax.	1	2	3	4	5
3. Because I like the feeling.	1	2	3	4	5
4. Because it is what most of my friends do when we get together.	1	2	3	4	5
5. To forget my worries.	1	2	3	4	5
6. Because it is exciting.	1	2	3	4	5
7. To be sociable.	1	2	3	4	5
8. Because I feel more self-confident or sure of myself.	1	2	3	4	5
9. To get drunk.	1	2	3	4	5
10. Because it is customary on special occasions.	1	2	3	4	5
11. Because it helps me when I am feeling nervous.	1	2	3	4	5

12. Because it's fun.	1	2	3	4	5
13. Because it makes a social gatherings more enjoyable.	1	2	3	4	5
14. To cheer me up when I'm in a bad mood.	1	2	3	4	5
15. To be liked.	1	2	3	4	5
16. To numb my pain.	1	2	3	4	5
17. Because it helps me when I am feeling depressed.	1	2	3	4	5
18. So that others won't bug me about not drinking.	1	2	3	4	5
19. To reduce my anxiety.	1	2	3	4	5
20. To stop me from dwelling on things.	1	2	3	4	5
21. To turn off negative thoughts about myself.	1	2	3	4	5
22. To help me feel more positive about things in my life.	1	2	3	4	5
23. To stop me from feeling so hopeless about the future.	1	2	3	4	5
24. Because my friends pressure me to drink.	1	2	3	4	5
25. To fit in with a group I like.	1	2	3	4	5
26. Because it makes me feel good.	1	2	3	4	5
27. To forget painful memories.	1	2	3	4	5

28. So I won't feel left out.	1	2	3	4	5

Appendix N

Drinking-Related Perceptions Scale (DRPS)

Number of standard drinks needed…

	We are interested in how people make decisions about personal levels of intoxication. The following questions will ask you to indicate how many standard drinks you would need to consume in order to experience some different consequences while drinking. Please circle the appropriate number of standard drinks in response to the scenario and each question. ***Scenario: Suppose it is a Saturday night and you are at a location where people are drinking (e.g., party, bar, club etc.). You decide to stay at the location for a period of 4 hours.***
1	How many standard drinks would you have to consume before you felt more outgoing? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*
2	How many standard drinks would you have to consume before it was easier for you to socialise? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*
3	How many standard drinks would you have to consume before it was easier for you to talk more freely? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*
4	How many standard drinks would you have to consume before you felt pleasant physical effects? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*
5	How many standard drinks would you have to consume before you felt a “buzz” from the alcohol? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*
6	How many standard drinks would you have to consume before you felt very sick to the stomach or threw up (i.e., vomited)? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*

7	How many standard drinks would you have to consume in order to experience a hangover (headache, sick stomach) the morning after drinking? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*

8	How many standard drinks would you have to consume before you passed out (i.e., blacked out) from drinking? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*
9	How many standard drinks would you have to consume before you might do something impulsive (due to your drinking) that it is likely you would later regret? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*

10	How many standard drinks would you have to consume before you found that you could not accurately remember parts of the evening the following day? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*
11	How many standard drinks would you have to consume before you might say or do embarrassing things due to your drinking? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*
12	How many standard drinks would you have to consume before you might say things that it is likely you would later regret? 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 *More than 25*

Appendix O

Preliminary Items for the Perceptions of Drinking Scale (PODS)

My drinking and me

Below are several thoughts, feelings, reactions and concerns that individuals may or may not experience when reflecting on their drinking and any associated negative consequences. <u>While reflecting on your drinking over the past several months</u>, please indicate whether your experience is consistent with the following statements with "1 = Strongly Disagree" and "5 = "Strongly Agree." There are no right or wrong answers and you are not expected to feel any particular way.

		Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	I should take notice of how much I'm drinking	1	2	3	4	5
2	I don't want to think about some of the things I've done while drinking	1	2	3	4	5
3	There is no reason to be concerned about the consequences of my drinking	1	2	3	4	5
4	I wouldn't drink as much if it weren't for the influence of certain people	1	2	3	4	5
5	I feel that I need to hide my true level of drinking from some people	1	2	3	4	5
6	I regret some of the things I've done while drinking	1	2	3	4	5
7	I feel disgraced because of the consequences of my drinking	1	2	3	4	5
8	It is nobody else's business how much I drink	1	2	3	4	5
9	I've got more important things to worry about than how much I drink	1	2	3	4	5

10	Because of my drinking I feel like sinking into the ground and disappearing	1	2	3	4	5
11	I feel a need to make amends for some of things I have done while drinking	1	2	3	4	5
12	My drinking is of little importance in the grand scheme of things	1	2	3	4	5
13	Because of my drinking I feel like I'm a failure	1	2	3	4	5
14	When I reflect on my drinking I feel uneasy	1	2	3	4	5
15	I've got nothing to gain by drinking less	1	2	3	4	5
16	It is problems caused by people around me that drive me to drink	1	2	3	4	5
17	I feel that my behaviour while drinking needs to be addressed	1	2	3	4	5
18	When I reflect on my drinking I feel like withdrawing from others	1	2	3	4	5
19	I feel bad about some of the things I've done while drinking	1	2	3	4	5
20	I drink as much as I do because of my friends	1	2	3	4	5
21	I feel bad because my drinking may have had a negative impact on others	1	2	3	4	5
22	I drink the amount that I do because of stress	1	2	3	4	5
23	I feel that I deserve to be disciplined because of my drinking	1	2	3	4	5

24	I feel bad because I may have let down those close to me due to my drinking	1	2	3	4	5
25	I feel like I am flawed as a person because of my drinking	1	2	3	4	5
26	My drinking doesn’t hurt anybody	1	2	3	4	5
27	I drink the amount that I do because of my upbringing	1	2	3	4	5
28	When I think about my drinking I feel like I have not been true to myself	1	2	3	4	5
29	I don't drink nearly as much as other people	1	2	3	4	5
30	There would be no benefit in cutting down my drinking	1	2	3	4	5
31	I feel worthless when I reflect on my drinking	1	2	3	4	5
32	I should probably start drinking less	1	2	3	4	5
33	I feel a need to apologize for some of the things I've done while drinking	1	2	3	4	5
34	I’ve got no reason to worry about my drinking	1	2	3	4	5
35	Because of my drinking I get the sense that others look down on me	1	2	3	4	5
36	When I reflect on my drinking I feel a need to change	1	2	3	4	5
37	My drinking is no big deal	1	2	3	4	5
38	Most people like a drink and I'm no different	1	2	3	4	5
39	When I think about my drinking I feel exposed	1	2	3	4	5

40	I need to improve my behaviour while I'm drinking	1	2	3	4	5
41	When I think about my drinking I feel that I don't measure up as a person	1	2	3	4	5
42	My current level of drinking is a problem and needs to be reduced	1	2	3	4	5
43	Worrying about my drinking is a waste of time	1	2	3	4	5
44	When I reflect on my drinking I feel as though I can’t do anything right	1	2	3	4	5
45	My level of drinking is heavily influenced by the people I drink with	1	2	3	4	5
46	I feel reluctant to talk about the consequences of my drinking	1	2	3	4	5
47	I could cut down the amount that I drink at any time	1	2	3	4	5
48	I try to avoid thinking about how much I actually drink	1	2	3	4	5
49	When I think about my drinking I experience feelings of regret	1	2	3	4	5
50	I feel that drinking less than I currently do would be pointless	1	2	3	4	5
51	When I reflect on my drinking I feel small and exposed	1	2	3	4	5
52	I have made some poor decisions with regard to drinking	1	2	3	4	5
53	I feel bad because I often drink more than I plan to	1	2	3	4	5

54	If bad things happen to me when I'm drinking, it seems that my friends often play a role	1	2	3	4	5
55	I could drink more alcohol without too many problems	1	2	3	4	5
56	If my friends drank less, so would I	1	2	3	4	5
57	I feel a need to practice more self-control when I drink	1	2	3	4	5
58	When I think about the consequences of my drinking I feel like disappearing	1	2	3	4	5
59	I feel there is no reason to be concerned about how much I drink	1	2	3	4	5
60	I feel a need to "fix" some of the consequences of my drinking	1	2	3	4	5
61	I feel like hiding when I think about the consequences of my drinking	1	2	3	4	5
62	I don’t drink excessively	1	2	3	4	5
63	The amount that I drink is nothing compared to other people I know	1	2	3	4	5
64	I feel I should refrain from drinking as much in the future	1	2	3	4	5
65	It is usually the actions of others that lead me to drink	1	2	3	4	5
66	My drinking is not problematic	1	2	3	4	5
67	I feel bad because my drinking may have led me to neglect some of my responsibilities	1	2	3	4	5

68	I purposely avoid talking with some people that I'm close to about how much I drink	1	2	3	4	5
69	I feel alone and isolated when I think about my drinking	1	2	3	4	5

Appendix P

Perceptions of Drinking Scale (PODS)

My drinking and me

Below are several thoughts, feelings, reactions and concerns that individuals may or may not experience when reflecting on their drinking and any associated negative consequences. <u>While reflecting on your drinking over the past several months</u>, please indicate whether your experience is consistent with the following statements with "1 = Strongly Disagree" and "5 = "Strongly Agree." There are no right or wrong answers and you are not expected to feel any particular way.

		Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	I feel bad about some of the things I've done while drinking	1	2	3	4	5
2	If my friends drank less, so would I	1	2	3	4	5
3	I feel worthless when I reflect on my drinking	1	2	3	4	5
4	There would be no benefit in cutting down my drinking	1	2	3	4	5
5	When I think about my drinking I feel that I don't measure up as a person	1	2	3	4	5
6	My level of drinking is heavily influenced by the people I drink with	1	2	3	4	5
7	I feel a need to make amends for some of things I have done while drinking	1	2	3	4	5
8	I feel that drinking less than I currently do would be pointless	1	2	3	4	5
9	I feel bad because my drinking may have had a negative impact on others	1	2	3	4	5

10	I wouldn't drink as much if it weren't for the influence of certain people	1	2	3	4	5
11	I have made some poor decisions with regard to drinking	1	2	3	4	5
12	When I reflect on my drinking I feel as though I can’t do anything right	1	2	3	4	5
13	I drink as much as I do because of my friends	1	2	3	4	5
14	I've got nothing to gain by drinking less	1	2	3	4	5
15	Because of my drinking I feel like I’m a failure	1	2	3	4	5
16	I need to improve my behaviour while I'm drinking	1	2	3	4	5
17	I feel alone and isolated when I think about my drinking	1	2	3	4	5

Appendix Q

Readiness to Change Questionnaire (RTCQ; Rollnick et al., 1992)

How I feel about my drinking right now

The following questionnaire is designed to identify how you personally feel about your drinking **right now**. Please read each of the questions below carefully and then decide whether you agree or disagree with the statements. Please circle your choice for each question. There are no right or wrong answers and you are not expected to feel any particular way.						
		Strongly Disagree	**Disagree**	**Unsure**	**Agree**	**Strongly Agree**
1	I **don't** think I drink too much	1	2	3	4	5
2	I am trying to drink less than I used to	1	2	3	4	5
3	I enjoy my drinking, but sometimes I drink too much	1	2	3	4	5
4	Sometimes I think I should cut down on my drinking	1	2	3	4	5
5	It's a waste of time thinking about my drinking	1	2	3	4	5
6	I have just recently changed my drinking habits	1	2	3	4	5
7	Anyone can talk about wanting to do something about drinking, but I am actually doing something about it	1	2	3	4	5
8	I am at the stage where I should think about drinking less alcohol	1	2	3	4	5
9	My drinking is a problem sometimes	1	2	3	4	5
10	There is no need for me to think about changing my drinking	1	2	3	4	5

11	I am actually changing my drinking habits right now.	1	2	3	4	5
12	Drinking less alcohol would be pointless for me	1	2	3	4	5

Appendix R

Readiness to Change Ruler (LaBrie et al., 2005)

On the ruler below, please circle the number that best describes how you feel *right now*:

1-------- 2 -------- 3 -------- 4 -------- 5 -------- 6 -------- 7 -------- 8 -------- 9 -------- 10

Never think about my drinking	Sometimes I think about drinking less	I have decided to drink less	I am already trying to cut back on my drinking	My drinking has changed. I now drink less than before

Appendix S

Depression Anxiety and Stress Scales 21-item version (DASS21: Lovibond & Lovibond, 1995)

How I've recently been feeling

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

	Did not apply to me at all	**Applied to me to me some of the time**	**Applied to me to a good part of time**	**Applied to me very much, or most of the time**
1. I found it hard to wind down	0	1	2	3
2. I was aware of dryness of my mouth	0	1	2	3
3. I couldn't seem to experience any positive feeling at all	0	1	2	3
4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5. I found it difficult to work up the initiative to do things	0	1	2	3
6. I tended to over-react to situations	0	1	2	3
7. I experienced trembling (e.g., in the hands)	0	1	2	3

8. I felt that I was using a lot of nervous energy	0	1	2	3
9. I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10. I felt that I had nothing to look forward to	0	1	2	3
11. I found myself getting agitated	0	1	2	3
12. I found it difficult to relax	0	1	2	3
13. I felt down-hearted and blue	0	1	2	3
14. I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15. I felt I was close to panic	0	1	2	3
16. I was unable to become enthusiastic about anything	0	1	2	3
17. I felt I wasn't worth much as a person	0	1	2	3
18. I felt that I was rather touchy	0	1	2	3
19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)	0	1	2	3
20. I felt scared without any good reason	0	1	2	3
21. I felt that life was meaningless	0	1	2	3

Appendix T

COPE Inventory (Carver et al., 1989)

How I typically cope with stress

We are interested in how people respond when they confront difficult or stressful events in their lives (e.g., a relationship break up or a job loss etc). There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Then respond to each of the following items by circling one number next to each statement, using the response choices listed just below. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU – not what you think "most people" would say or do. Simply Indicate what you usually do when you experience a stressful event.

1 = I usually don't do this at all
2 = I usually do this a little bit
3 = I usually do this a medium amount
4 = I usually do this a lot

Usually when I'm stressed…	I usually don't do this at all	I usually do this a little bit	I usually do this a medium amount	I usually do this a lot
1. I try to grow as a person as a result of the experience.	1	2	3	4
2. I turn to work or other substitute activities to take my mind off things.	1	2	3	4
3. I get upset and let my emotions out.	1	2	3	4

4. I blame myself for things that happened.	1	2	3	4
5. I try to get advice from someone about what to do.	1	2	3	4
6. I concentrate my efforts on doing something about it.	1	2	3	4
7. I say to myself "this isn't real."	1	2	3	4
8. I admit to myself that I can't deal with it, and quit trying.	1	2	3	4
9. I restrain myself from doing anything too quickly.	1	2	3	4
10. I discuss my feelings with someone.	1	2	3	4
11. I use alcohol or drugs to make myself feel better.	1	2	3	4
12. I get used to the idea that it happened.	1	2	3	4
13. I talk to someone to find out more about the situation.	1	2	3	4
14. I keep myself from getting distracted by other thoughts or activities.	1	2	3	4
15. I daydream about things other than this.	1	2	3	4
16. I get upset, and am really aware of it.	1	2	3	4
17. I make a plan of action.	1	2	3	4
18. I accept that this has happened and that it can't be changed.	1	2	3	4
19. I hold off doing anything about it until the situation permits.	1	2	3	4

20. I try to get emotional support from friends or relatives.	1	2	3	4
21. I just give up trying to reach my goal.	1	2	3	4
22. I take additional action to try to get rid of the problem.	1	2	3	4
23. I try to lose myself for a while by drinking alcohol or taking drugs.	1	2	3	4
24. I refuse to believe that it has happened.	1	2	3	4
25. I let my feelings out.	1	2	3	4
26. I try to see it in a different light, to make it seem more positive.	1	2	3	4
27. I talk to someone who could do something concrete about the problem.	1	2	3	4
28. I sleep more than usual.	1	2	3	4
29. I try to come up with a strategy about what to do.	1	2	3	4
30. I focus on dealing with this problem, and if necessary let other things slide a little.	1	2	3	4
31. I get sympathy and understanding from someone.	1	2	3	4
32. I drink alcohol or take drugs, in order to think about it less.	1	2	3	4
33. I give up the attempt to get what I want.	1	2	3	4
34. I look for something good in what is happening.	1	2	3	4

35. I think about how I might best handle the problem.	1	2	3	4
36. I pretend that it hasn't really happened.	1	2	3	4
37. I make sure not to make matters worse by acting too soon.	1	2	3	4
38. I try hard to prevent other things from interfering with my efforts at dealing with this.	1	2	3	4
39. I go to movies, use the internet, or watch TV to think about it less.	1	2	3	4
40. I accept the reality of the fact that it happened.	1	2	3	4
41. I ask people who have had similar experiences what they did.	1	2	3	4
42. I feel a lot of emotional distress and I find myself expressing those feelings a lot.	1	2	3	4
43. I take direct action to get around the problem.	1	2	3	4
44. I force myself to wait for the right time to do something.	1	2	3	4
45. I reduce the amount of effort I'm putting into solving the problem.	1	2	3	4
46. I talk to someone about how I feel.	1	2	3	4
47. I criticise myself.	1	2	3	4
48. I use alcohol or drugs to help me get through it.	1	2	3	4

49. I learn to live with it.	1	2	3	4
50. I put aside other activities in order to concentrate on this.	1	2	3	4
51. I think hard about what steps to take.	1	2	3	4
52. I act as though it hasn't even happened.	1	2	3	4
53. I do what has to be done, one step at a time.	1	2	3	4
54. I learn something from the experience.	1	2	3	4

Appendix U

Attitudes towards Self-Revised Scale (ATS-R; Carver et al., 1988)

Attitudes towards myself

Respond to each of the following statements by marking a number on your answer sheet. Do not leave any items blank. Please be as honest as you can throughout, and try not to let your answer to one item influence your answers to other items. There are no correct or incorrect answers. You are simply to express your own personal feelings. For each statement, indicate how much you agree or disagree with it.					
	I disagree a lot	**I disagree a little**	**I'm in the middle**	**I agree a little**	**I agree a lot**
1. Compared to other people, I expect a lot from myself.	1	2	3	4	5
2. When even one thing goes wrong I begin to wonder if I can do well at anything at all.	1	2	3	4	5
3. I get angry with myself if my efforts don't lead to the results I wanted.	1	2	3	4	5
4. When it comes to setting standards for my behaviour, I aim higher than most people	1	2	3	4	5
5. I hardly ever let unhappiness over one bad time influence my feelings abut other parts of my life.	1	2	3	4	5
6. When I don't do as well as I hoped to, I often get upset with myself.	1	2	3	4	5
7. I set higher goals for myself than other people seem to.	1	2	3	4	5
8. If I notice one fault of mine, it makes me think about my other faults.	1	2	3	4	5

9. I get unhappy with anything less than what I expected of myself.	1	2	3	4	5
10. A single failure can change me from feeling OK to seeing only the bad in myself.	1	2	3	4	5